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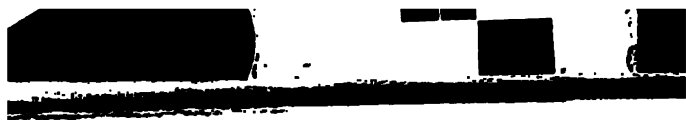
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OUTLINES

OF THE

HISTORY OF EDUCATION

1

BY

WILLIAM B. ASPINWALL, Pd.M., Ph.D.

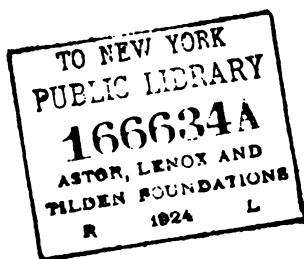
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NEW YORK STATE NORMAL COLLEGE
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TO
WILLIAM J. MILNE, PH.D., LL.D.
PRESIDENT OF THE NEW YORK STATE NORMAL COLLEGE
WHOSE PERSONAL INFLUENCE AND WISE COUNSEL
HAVE FOR MANY YEARS BEEN A SOURCE OF
ENCOURAGEMENT AND INSPIRATION TO
THOUSANDS OF STUDENTS AND
TEACHERS
THIS BOOK IS AFFECTIONATELY DEDICATED



PREFACE

THIS little volume of studies has been prepared as a guide to the study of the History of Education for students in colleges and normal schools, with the hope that from out of the maze of facts and events which surround and obscure the subject, they may by its aid gain a clearer understanding of the development of educational thought and practices. Most books that deal with this broadest of historical subjects do not marshal the facts contributing to progress in education so that a definite tendency or purpose or result can be discerned. As a matter of value and profit, it is not so important to the student to know the facts as it is to know the bearing of the facts upon the movement, to understand their dependence upon what has gone before as well as upon the actual conditions surrounding them and to see their influence upon the development of the movement. We all know that any type of educational practice is but the outward expression of the thoughts and ideals and purposes which guide one generation in the rearing of the next, while these thoughts, ideals, and purposes are, in their turn, born of the national life and civilization in which they have matured. Now, it is always a difficult thing for the student to pick out the essential and contributing facts and to discover their meaning, and usually, working by himself, he either fails to get very much true significance from them or else he gets it at very great expense of thought and effort. My experience in teaching the History of Education has,

therefore, proved to me, that by providing the student with outlines of the important and significant facts and movements of thought, free from the mass of exposition and narration and description that usually accompanies them, so that he may approach his reading with a definite notion of what he is to learn from it, he inevitably gains a better understanding of what he reads, has a genuine, intelligent interest in it, and does not find it necessary to spend so much time and strength on it without results.

This method of procedure is, furthermore, especially conducive to the chief end desired in the study of the History of Education. For the educational value of the study of this subject is unquestionably cultural rather than disciplinary. Instead of seeking to promote mental training, we are endeavoring to interpret the subject, in order that in the light of past experience we may the better understand the educational practices and ideals of the present. And everything that can be done to secure this result, whether it be done by topical references for reading, by outlines, by charts, by tabulations, or by suggestive questions, is, in my judgment, a worthy effort.

Since, then, these studies have accomplished this end for my own students, and they have done so most convincingly, I feel sure that they will prove helpful to students generally. If they serve to make more intelligible the course of educational development and thus to make better informed those who use them, I shall be well repaid for the efforts put into their preparation. The well-qualified teacher will not use them as a textbook, but will require much additional reading from the references given, by which to bring out the events and conditions surrounding the educational work. But it is fair to say that if at the end of the course the student has a clear grasp of these studies alone as they outline the subject, he ought by

Preface

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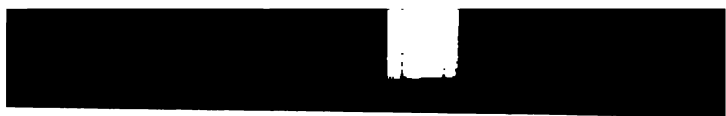
that accomplishment to satisfy the demands of any teacher who has the student's welfare at heart.

I send them forth, therefore, with the sole wish to assist the student by contributing to his intelligent interpretation and enjoyment of a subject which, by its many intimate and intricate relationships with life in all its varied phases, is so often difficult to understand, but which is for the same reason always full of intense interest.

W. B. A.

ALBANY, N.Y.,

February 1, 1912.



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INTRODUCTION

THIS book attempts to place in small compass the long and involved story of the evolution of those different philosophies of education which have been substantial enough to endure; and is probably as successful as such an effort can hope to be. Few teachers can find the time, even though they can find the books and have the necessary application, to cover this vast field. Few have the books at hand and certainly very few have the mental training and discipline to assimilate the writings of the educational philosophers of the world. Yet they want to know the distinguishing contentions of the men and women who have thought deeply upon the things that deserve most to be used and the methods that are most effectual in drawing out and energizing the human mind; or at least they want to know where they may find the particular plans and methods for which the great names in education stand. This want seems to be very well met here. The work has clearly been prodigious. It has resulted in something more than a catalogue or a bibliography. There has been manifestly an attempt to clear out underbrush so that wanderers or travelers with a purpose may explore the woods and hope to get out again in the course of a human life. This will of course provide loopholes for criticism. Some may say that not enough underbrush was cut out, and others that too much was cleared up, and still others that some interpretations were mistaken and some connections erroneous. It matters little. The book was manifestly not prepared for the very great, of whom there

are few; but for ordinary workers in the schools, of whom there are many. It will be of service to them, and that will undoubtedly satisfy the ambition of the author.

Incidentally one can hardly examine this book without being impressed more deeply than ever with the reflection that the deep thinking and the substantial knowledge of the world is old. There is not much that is new. But it was much confined and circumscribed. Now it is being let loose and widely diffused. It is being made available to ordinary people. This book grows out of the spirit of our generation. Dr. Aspinwall is to be commended for having been moved by that spirit, for having seen the opportunity to render a service to the guild of teachers, and for having performed that service with so much labor and discrimination.

A. S. DRAPER.

NEW YORK STATE EDUCATION DEPARTMENT,
February 6, 1912.

OUTLINES
OF THE
HISTORY OF EDUCATION



OUTLINES OF THE HISTORY OF EDUCATION

EDUCATION IN ANTIQUITY

ANCIENT EGYPTIAN EDUCATION (C. 4400 B.C. TO 332 B.C.)

(Davidson: *Hist. Educ.*, 37-41; Graves: *Hist. Educ.*, 22-42; Kemp: *Hist. Educ.*, 39-44; Laurie: *Pre-Chr. Educ.*, 11-45; Painter: *Hist. Educ.*, 1st ed., 32-36, 2d ed., 33-38; Seeley: *Hist. Educ.*, 46-51; Williams: *Hist. Anc. Educ.*, 57-72.)

National Characteristics

1. Classes of society fixed.
 - a. Priests.
 - b. Soldiers.
 - c. Producers.
2. Bureaucratic government under priestly control.
3. Morality formal and dogmatic.
4. Civilization well advanced.
 - a. Irrigation, resulting in great fertility of soil.
 - b. Engineering, regulating the Nile overflow.
 - c. Fine arts developed to high degree of excellence.
5. People conservative and homogeneous, due to little international communication.
6. Religion.
 - a. Worship of the Nile and the sun.
 - b. Belief in a future life.
 - c. Prudential ethics.
7. Women kindly treated but subordinate.

4 *Outlines of the History of Education*

4. Suppression of individuality, with corresponding respect for
 - a. The family,
 - b. The State,
 - c. The spirits of the dead.
5. Reverence for traditional ideas and customs, with an unfailing belief in the established order of society.
6. Influence of Confucianism : a system of natural morality.
7. Formalism in life.

Religion and Ethics

1. Ancestor worship.
2. Recognition of a Supreme Power.
3. Truth sanctioned by tradition.
4. Virtue and morality a matter of knowledge and observance of fixed ideas and customs.
5. No appeal to reason.
6. Expediency rather than righteousness.
7. Great reverence for the family relationships.
 - a. Absolute power of life and death rested in head of family.
 - b. Implicit obedience demanded of wife and children.
 - c. The State a development of the family and the Emperor its head.

Purpose of Education

1. The preservation of existing conditions and institutions.
2. The preparation for successive examinations on definite requirements unchanged for centuries : the sole avenue to success in life, namely, to hold public office.
3. The mastery of the sacred literature.

Organization of Education

1. A system of examinations, not of schools; yet private schools were encouraged.
2. *Hanlin* or Imperial Academy at the head, which controlled examinations, acted as cabinet to Emperor, kept public records and archives.
3. Empire divided into 18 provinces, each in charge of a chancellor; provinces into 252 counties, each in charge of a subchancellor; and counties into 705 districts, in charge of educational mandarins.
4. Elementary schools: in private dwellings, without State control, teachers unlicensed. Pupils entered at age of 6 or 7 years. School hours from sunrise to 5 P.M. and continued nearly all the year.
5. The examinations.
 - a. Preliminary or district examinations, covering the elementary work.
 - b. County examination, admitting to first degree: "Flourishing Talent" (cf. B.A.).
 - c. Provincial examination, admitting to second degree: "Promoted Scholar" (cf. M.A.).
 - d. Peking examination, admitting to third degree: "Fit for Office" (cf. Ph. D.).
 - e. Final examination, admitting to the Imperial Academy.

Content of Education

1. First grade: Reading, writing, rudimentary arithmetic, learning characters of language (5000-30,000), memorizing without explanation of the Four Books and the Five Classics. Covered 3 to 5 years.

6 *Outlines of the History of Education*

2. Second grade: Translation of sacred books into more modern Chinese, explanation of the meaning, composition. Covered 4 to 5 years.
3. Third grade: Essay writing, imitation of style and thought of sacred books, commentaries on them. Covered an indefinite time.

Method of Teaching

1. Memory work.
2. Exact imitation, without originality — use of tracing paper.
3. Study aloud and in concert.
4. Rapid repetition.
5. Individual recitation.

Teachers

1. Unsuccessful candidates for degrees.
2. Unfortunate recipients of degrees who have no office.
3. No training for work, no license, no supervision.
4. Small pay, long hours.
5. Rigid discipline — use of rod.

Results of Chinese Education

1. A stable but non-progressive society.
2. Suppression of individuality.
3. Training in memory, attention, accuracy, but no initiative, originality, nor independence secured.
4. Form not content the object of attention.
5. Interest totally lacking as a stimulus.
6. Recognition of absolute authority.
7. Weak moral training.
8. Content not related to daily duties of life.
9. Small proportion of population educated — women not at all.

ANCIENT HINDU EDUCATION (C. 2000 B.C. TO MODERN TIMES)

(Compayré: *Hist. Ped.*, 2-6; Davidson: *Hist. Educ.*, 56-66; Graves: *Hist. Educ.*, 77-90; Kemp: *Hist. Educ.*, 26-33; Laurie: *Pre-Chr. Educ.*, 157-177; Monroe: *Brief Course*, 19-21; Painter: 1st ed., 15-21, 2d ed., 18-23; Seeley: *Hist. Educ.*, 29-35; Williams: *Hist. Anc. Educ.*, 50-56.)

National Characteristics and Environment

1. Race.

a. Mingling of Aryan blood with that of native Hindus, resulting in loss of original vigor; due also to effect of climate and religion.

2. Climate enervating.

3. Country fertile and rich in possibilities.

4. Religion.

a. Brahmanism: pantheistic for the intelligent classes, polytheistic for the masses.

b. Self-annihilation the ideal, leading to a life of contemplation.

c. Buddhism in later times: based on moral acts, teaching unselfishness and brotherly love.

5. Social conditions.

a. Castes: Brahmans, soldiers, traders, slaves (sudras).

b. No opportunity to rise: hence lazy, unambitious people.

c. Woman regarded as man's slave.

Aim or Purpose of Education

1. Preparation for life to come.

2. Preservation of caste system.

Organization and Content of Education

1. Elementary.
 - a. Commencing at age of 6 or 7 years.
 - b. For all classes but sudras.
 - c. In open air or sheds.
 - d. Reading, writing, rudimentary arithmetic, religious observances, laws, traditions, customs, fables, parables, allegories.
2. Higher.
 - a. For Brahmans chiefly, but open to a limited extent to soldiers and traders.
 - b. In Brahmanic colleges.
 - c. Took twelve years to complete.
 - d. Religious works and practices, grammar, mathematics, history, poetry, philosophy, astronomy, medicine, law.
 - e. No physical education.

Method of Education

1. Memory training.
2. Repetition without comment or comprehension.
3. Studying aloud.
4. Writing on sand, on palm leaves with stylus, and on plane leaves with ink.
5. Progress slow.
6. Discipline mild.

Teachers

1. Brahmans: those who had completed the entire course.
2. Held in high respect.
3. Paid by voluntary gifts.
4. " Monitorial " system of pupil teaching.

Effects of Hindu Education

- . Rigid caste system with no mutual sympathy.
- . Gloomy outlook on life: no ambition nor responsibility.
- . No mental culture nor training for citizenship.
- . Cultivated passive virtues solely.
- . Traditional learning mixed with superstition.
- . Some contributions to succeeding generations in philosophical and mathematical lines.

ANCIENT HEBREW EDUCATION (2000 B.C.-500 A.D.)

Compayré: *Hist. Ped.*, 6-11; Davidson: *Hist. Educ.*, 77-6; Graves: *Hist. Educ.*, 110-137; Kemp: *Hist. Educ.*, 45-4; Laurie: *Pre-Chr. Educ.*, 65-100; Monroe: *Brief Course*, 1-23; Painter: 1st ed., 26-32, 2d ed., 27-33; Seeley: *Hist. Educ.*, 40-45; Williams: *Hist. Anc. Educ.*, 86-94.)

National Characteristics

- . Religious: theocratic, monotheistic.
- . Domestic: the family a highly respected institution.
- . Agricultural.

Educational Ideals

- . Moral and religious.
- . Practical, for duties of life.

Organization of Education

- . During the Biblical period.
 - a. The family, for elementary grades.
 - b. Schools of the Prophets, for the higher instruction of scribes and priests.

Aim of Education

1. Military and physical, with training in valor and other manly virtues.

Organization and Content of Education

1. Family up to 7 years of age.
2. State-controlled thereafter.
3. Physical and moral up to 15 years of age; then military and civil.
4. Boys only.
5. State control extended to food and dress.
6. Individuality trained, for moral perfection.
7. Through example, imitation, and practice, the elders assisting in the training of the youth.
8. Higher education for Magi only: philosophy, astronomy, medicine, law, finance.

Results of Persian Education

1. A courageous and powerful people.
2. Personality given importance.
3. State control of education found feasible.
4. Frugality and temperance the chief virtues.
5. National strength endured as long as the nation remained military.
6. No preparation for peace and leisure.
7. No intellectual and literary culture.
8. No education for women.

EDUCATION IN GREECE AND ROME

GREEK EDUCATION

(Browning: *Educ. Theories*, 1-25; Compayré: *Hist. Ped.*, 17-42; Davidson: *Hist. Educ.*, 86-105, *Aristotle & the Anc. Educ. Ideals*, 3-37; Graves: *Hist. Educ.*, 138-229; Hailman: *Hist. Ped.*, 18-30; Kemp: *Hist. Educ.*, 55-56; Laurie: *Pre-Chr. Educ.*, 196-226; Monroe: *Source-Bk. in Hist. Educ.*, 1-15, *Text-Bk.*, 57-70, *Brief Course*, 28-33; Painter: *Hist. Educ.*, 1st ed., 37-40, 2d ed., 41-46.)

National Conditions that influenced Education

- i. Race: not national but tribal.
 - a. Dorians: unimaginative, practical, military (represented by the Spartans).
 - b. Ionians: imaginative, artistic, literary, philosophical (represented by the Athenians).
 - c. Æolians (Thebans).
 - d. Achæans.
- ii. Religion.
 - a. Polytheism: gods regarded as personalities.
 - b. Worship of the beautiful and the ideal in nature and in human life.
 - c. Ceremonial: prayer, libations, festivals, games, mysteries, oracles, divination.
- iii. Geography and climate.
 - a. Maritime, with commercial possibilities.

- b.* Plains and mountains, with mild, even climate, conducive to happiness and equanimity; and bracing air stimulating to thought.
- c.* Islands round about — rivers numerous but small.
- d.* Agriculture not extensive.
- e.* Made necessary distinct states instead of unified nation
- 4. People: character and occupation.
 - a.* Commercial (products: iron, silver, copper, marble trades: spinning, weaving, making of pottery, armor furniture, etc.).
 - b.* Maritime and adventurous.
 - c.* Religious.
 - d.* Patriotic within each city-state.
 - e.* Literary and military in different states.

Homeric Period of Education (1000-776 B.C.)

(Davidson: *Hist. Educ.*, 86-94, *Aristotle & the Anc. Educ Ideals*, 15-18, 33-34, *Educ. of the Gk. People*, 53-63; Graves *Hist. Educ.*, 146-148; Grote: *Hist. Greece*, v. 1, ch. 20 Homer: *Iliad* (I, 52-302, II, 35-380, IX, 50-180, 438 ff., X 335-579, XI, 617-804, XVIII, 245-318, XIX, 40-275, XXIII 260 ff., etc.), *Odyssey*; Laurie: *Pre-Chr. Educ.*, 197-199 Mahaffy: *Social Life in Greece*, 1-74; Monroe: *Text-Bk. in Hist. Educ.*, 62-67, *Brief Course*, 31-33, *Source-Bk.*, 1-3 Taylor: *Anc. Ideals*, 127-194.)

- 1. Twofold ideal.
 - a.* Man of action — virtues: bravery and reverence.
 - b.* Man of wisdom — virtues: prudence and temperance.
- 2. Purpose.
 - a.* To prepare for definite practical activity.
 - b.* To equip for martial life and for needs of life at home.

3. Organization.
 - a. Councils (no schools, no books).
 - b. Association with elders.
 - c. Daily duties of life.
4. Content.
 - a. Military exercises, piety, religion, ethics, music, rhetoric, healing art.
5. Method.
 - a. Imitative and at the same time rational.
 - b. By living personal example rather than by precept.
 - c. Offered possibilities of growth : germ of individualism.
6. Results.
 - a. A civilization of high ideals.
 - b. Advanced ethical culture.
 - c. Women held in high esteem (trained in household arts).
 - d. Monogamy — piety — reverence.
 - e. Little literary instruction.
 - f. No special teachers.

Historic Greek Education (776-480 B.C.)

(a) At Sparta

(Barnard: *Journ. of Educ.*, v. 14, 611-624; Compayré: *Hist. Ped.*, 17-19; Davidson: *Aristotle & the Anc. Educ. Ideals*, 41-51; Graves: *Hist. Educ.*, 149-157; Kemp: *Hist. Educ.*, 55-61; Laurie: *Pre-Chr. Educ.*, 228-248; Monroe: *Source-Bk.*, 1-11, *Text-Bk.*, 70-79, *Brief Course*, 33-40; Painter: *Hist. Educ.*, 1st ed., 40-45, 2d ed., 41-46; Seeley: *Hist. Educ.*, 68-73; *U. S. Com'r Educ. Rept.*, 1897-1898, v. 1, 518-521, 571-589; Williams: *Hist. Anc. Educ.*, 95-106.)

1. Ideal or aim.
 - a. To develop strength, courage, and obedience to law.
 - b. To make brave, patriotic soldiers.
 - c. To provide a physical, military, and moral education with the purpose of preserving the State thereby.
2. Organization.
 - a. State control from birth, but in family up to 7 years of age, then under state officer.
 - b. Life in common: self-government under supervision of adults.
 - c. Association with elders.
 - d. Women had similar physical and moral training at home.
 - e. Higher education in military and public service.
3. Content.
 - a. Gymnastics: training in hardening and discipline — a rigorous life.
 - b. Hunting, games, contests, dancing, military exercises.
 - c. Religious and martial music.
 - d. Conversation with elders — concise (laconic) expression of thought.
 - e. Practice with arms — real military life.
4. Method.
 - a. Imitation — practice — experience.
 - b. Conversation and association with adults.
 - c. Play — rivalry.
 - d. Appeal to patriotic emotions and pride.
 - e. Community idea, not individual.
5. Results and criticisms of Spartan education.
 - a. Subordination of individual to State.
 - b. Physical training for military purposes.
 - c. Stable but not progressive society.

- d. State morality rather than individual responsibility — moral development weak when personal decisions were demanded.
- e. Great patriotism and courage.
- f. Neglect of literary, artistic, and intellectual training.
- g. Failure to develop the highest traits of character.

(b) *At Athens*

(Barnard: *Journ. of Educ.*, v. 24, 453-486; Compayré: *Hist. Ped.*, 19-21; Davidson: *Hist. Educ.*, 86-105, *Aristotle & the Anc. Educ. Ideals*, 60-92, *Educ. of the Gk. People*, 53-77; Graves: *Hist. Educ.*, 157-170; Kemp: *Hist. Educ.*, 62-83; Laurie: *Pre-Chr. Educ.*, 248-288; Mahaffy: *Old Gk. Educ.*, 1-77; Monroe: *Source-Bk.*, 11-33, *Text-Bk.*, 79-100, *Brief Course*, 40-51; Painter: *Hist. Educ.*, 1st ed., 49-56, 2d ed., 55-63; Seeley: *Hist. Educ.*, 56-60; Williams: *Hist. Anc. Educ.*, 107-129.)

- 1. Ideal or aim.
 - a. To develop personality by some form of achievement beyond the demands of society.
 - b. To live happily and beautifully.
- 2. Organization and content.
 - a. 1-7, in family.
 - b. 7-16, in elementary schools.
 - (1) "Music" and gymnastics.
 - (2) In charge of pedagogue.
 - c. 16-18, in secondary schools
 - (1) At State expense, but restricted to wealthier and more cultured class.
 - (2) Advanced physical training, civics, ethics, association with elders.

- d.* 18-20, as registered citizen (ephebus) in charge of State officials.
 - (1) First year in garrison with training as soldier.
 - (2) Second year on duty as regular soldier.
 - (3) Included physical training for military service with political and moral instruction.
- e.* After 20, full-fledged citizen.
 - (1) Continued physical, intellectual, and moral growth demanded by State.
- f.* Details of content.
 - (1) Gymnastics: physical exercises for development and gracefulness; games for quick perception, courage and moral training; dancing for harmony of development; hunting and military drill.
 - (2) Music: poetry, drama, history, science, oratory, civics, ethics, religion, musical composition, and instrumentation (for creative power and appreciation).
- 3. Method.
 - a.* Imitation of living models.
 - b.* First "doing" to form habits, second "learning" to render habits rational and permanent.
 - c.* Writing by imitation — repetition in concert — memorizing with explanation afterwards.
 - d.* Development of judgment, discrimination, initiative and the creative rational side of the personality.
 - e.* Discipline a system of punishment and reward.
- 4. Results and criticisms of Old Athenian Education.
 - a.* Definite school system, under State control.
 - b.* Stable, free, vigorous social organization.
 - c.* Unrestricted development of individuality.
 - d.* "Freedom" from limitations, in expression of personality.

- e. Life of reason, of morality, of beauty.
- f. Culminated in great achievements along intellectual, literary, artistic, and political lines.
- g. Women's training restricted to household duties.

New Greek Education (480-338 B.C.): at Athens

(Davidson: *Educ. of Gk. People*, 78-88, 103-115, *Aristotle & the Anc. Educ. Ideals*, 90-92, 97-113; Graves: *Hist. Educ.*, 170-214; *Pre-Chr. Educ.*, 283-295; Mahaffy: *Old Gk. Educ.*, 1-77; Monroe: *Source-Bk.*, 51-66, *Text-Bk.*, 102-110, *Brief Course*, 52-55.)

- 1. Situation at beginning of the new period.
 - a. Supremacy of Athens, culminating in the Periclean Age — an era of great achievement.
 - b. Expansion.
 - (1) Commercial and industrial growth.
 - (2) Intellectual activity — literary and artistic development.
 - (3) More popular government.
 - c. Foreign relations.
 - (1) Interchange of customs and ideas.
 - (2) Change of views and practices.
 - d. New tendencies in religion and philosophy.
 - (1) From belief in arbitrary control of the gods to more scientific ways of explaining things in nature.
 - (2) Replacing nature with man in the search for reality.
 - (3) Emphasis on human interests in literary productions.
- 2. New ideals.
 - a. Individual development greater than service to the State — personal advancement.
 - b. Broader democratic ideals.

- c.* Less conservatism — more toleration.
- d.* Overthrow of authority and tradition.
- e.* Political ambition — gain.
- f.* Expediency rather than righteousness.
- g.* Skepticism and license.
- 3. Effect on education.
 - a.* Demand for a broader and higher education to promote individual interests rather than the welfare of the State.
 - b.* Desire not for harmonious development but for knowledge that would contribute to advancement.
 - c.* Emphasis on skill in debate and public speaking.
 - d.* Less desire for physical exercise.
 - e.* More freedom of choice of studies.
 - f.* Introduction of new subjects and new methods of study.
- 4. The Sophists.

(Davidson: *Hist. Educ.*, 81-96, *Aristotle & the Anc. Educ. Ideals*, 101-107; Graves: *Hist. Educ.*, 173-180; Kemp: *Hist. Educ.*, 72-73; Laurie: *Pre-Chr. Educ.*, 284-287, 301-308; Mahaffy, *Old Gk. Educ.*, 78-90; Monroe: *Source-Bk.*, 91-116, *Text-Bk.*, 110-120, *Brief Course*, 55-59.)

- a.* Teachers professing to meet these demands.
- b.* Taught extreme individualism, making opinion the standard of truth.
- c.* Subjects emphasized in this development of higher education: grammar, poetry, style, oratory, rhetoric, music, and mathematics, natural science, economics, and politics.
- d.* Methods: disputation, memorizing set speeches, acquiring superficial information, formal and tricky argumentation.

- e.** Results of their teaching: extravagance, skepticism, freedom, art of persuasion.

Educational Writers and Theorists

Pythagoras (c. 582–500 B.C.)

[Davidson: *Aristotle & the Anc. Educ. Ideals*, 52–59; Graves: *Hist. Educ.*, 177–178; Kemp: *Hist. Educ.*, 70–72; Painter: *Hist. Educ.*, 1st ed., 45–49, 2d ed., 46–50; Seeley: *Hist. Educ.*, 73; Williams: *Hist. Anc. Educ.*, 141–157.)

1. Early life and education.

- a.** Native of Samos, pupil of Thales, educated in Egypt, founded school in Crotona, South Italy.

2. Educational doctrine.

- a.** Aim: to produce harmony and proportion in life.
- b.** Theory: number is the essence and origin of all things^t — laws of numbers are the laws of things — everything intelligible can be explained numerically — without number all is chaos.
- c.** Socialistic system: in opposition to individualistic tendency of sophists on analogy of harmony of celestial bodies — society to be so arranged, as to put each man in his proper place, from which complete harmony and social order would ensue.
- d.** Educational scheme: for harmonizing the individual, through music as the means of gaining harmony (worked out mathematically, constituting the first scientific treatment of music), mathematics (arithmetic, geometry, astronomy), religion (basis of harmony and moral action), and gymnastics.
- e.** Religious doctrines: transmigration of the soul, retribution, and a future life.

Socrates (469-399 B.C.)

(Compayré: *Hist. Ped.*, 22-27; Davidson: *Educ. of Gk. People*, 103-127; Fitch: *Educ. Aims & Meths.*, ch. 2; Graves: *Hist. Educ.*, 180-184; Hailman: *Hist. Ped.*, 31-41; Kemp: *Hist. Educ.*, 74-76; Mahaffy: *Old Gk. Educ.*, 78-90; Monroe: *Source-Bk. of Hist. Educ.*, 116-120, *Text-Bk.*, 122-130, *Brief Course*, 60-63; Painter: *Hist. Educ.*, 1st ed., 56-60, 2d ed., 63-67; Seeley: *Hist. Educ.*, 61-63; Williams: *Hist. Anc. Educ.*, 133-164.)

1. Life.

a. Early life and training.

(1) Born at Athens — son of sculptor — trained at first for that occupation — saw military service — early devoted himself to poetry, then to philosophical studies.

b. Known for both physical and moral courage and for indifference to hardship.

c. Itinerant teacher — in conversation with all who would listen.

2. Relation to the sophists.

a. Himself a superior sophist.

b. Adopted the fundamental positions of the sophists and supplemented them.

c. Sophists said, "Man is the measure of all things," meaning individual man; hence for them mere opinion was knowledge. Socrates said that the knowledge that is common to all men is truth, and man is the measure of all things only so far as the knowledge by which he judges of the truth has this universal validity.

- d. Sophists emphasized man's peculiarities (sensations, emotions); Socrates, man's rational and universal self.
 - e. Socrates believed that by removing individual differences there would be laid bare the essentials upon which all men are agreed.
 - f. He differed from them in the moral value of "right" knowledge.
3. The problem of education of his day.
- a. Harmonizing of social and individual interests.
 - b. Relation of knowledge to moral conduct.
4. His aim.
- a. To give knowledge to the individual by developing in him the power of thought.
 - b. To apply the doctrine of universal knowledge within each person to moral conduct; right "knowledge is virtue."
5. His method.
- a. Dialectic: conversational, questioning.
 - (1) *Irony*: questioning to clear the mind of error or unverified knowledge, to gain a true estimate of the value and extent of one's knowledge (cf. the preparation step).
 - (2) *Maieutics*: questioning to gain new truth, to develop in the individual the power of formulating the truth which in his own experience and in his own consciousness has universal validity (cf. presentation and application steps).
 - b. Discourse disposing to reflection on experience and thus to formulate general principles which may be a guide to moral conduct.
 - c. Means of enabling an individual to pass through these three stages in relation to the knowledge of any

subject: (1) unconscious ignorance, (2) conscious ignorance with desire to know the truth, (3) possession of clear and reasoned truth.

- d.* To develop moral strength by creating an intelligent consciousness of what one does and the reasons for doing it.
6. Influence of the Socratic Method.
 - a.* Placed emphasis on knowledge that would contribute to moral development.
 - b.* Replaced the formal impartation of information of the sophists with the conversational method designed to generate power of thinking and of forming correct conclusions.
7. Limitations of the Socratic Method.
 - a.* Applicable to the formulation of all truth that is within the reason of every individual, as ethical principles.
 - b.* Applicable to the discussion and consequent clarifying of facts in history, philosophy, or any science that has to do with motive or conduct.
 - c.* Not adequate to supply content not given by experience; as, in physical science, mathematics, grammar.
 - d.* Valuable, however, to give to these subjects scientific form, classification, and interpretation.
 - e.* Useful as process of stimulating thought and of forming habits of correct and forcible expression.
8. Effect of Socrates's teaching on education.
 - a.* Made the aim of teaching to develop the power of thought, not to impart knowledge.
 - b.* Made knowledge, however, the basis of action by emphasizing its practical and moral worth.
 - c.* Made the method of teaching dialectic and reflective.

Xenophon (c. 430-355 B.C.)

(Compayré: *Hist. Ped.*, 34-36; Davidson: *Aristotle & the Anc. Educ. Ideals*, 114-132; Graves: *Hist. Educ.*, 179; Monroe: *Source-Bk. of Hist. Educ.*, 35-50, 116-128, *Text-Bk.*, 123; Painter: *Hist. Educ.*, 1st ed., 23-24, 2d ed., 50-54, *Ped. Essays*, 61-82.)

1. Early life and education.
 - a. Native of Athens, pupil of Socrates, soldier, writer on history and philosophy.
2. Some of his writings.
 - a. On education: *Cyropedia* and *Economics*.
 - b. On history and philosophy: *Anabasis*, *Hellenica*, *Agexilaus*, *Memorabilia*, etc..
3. Educational doctrine.
 - a. Purpose: to modify the excesses in the life of the Athenians, by the portrayal of an ideal of life that would counteract the individualistic tendencies of the sophists.
 - b. In *Cyropedia*.
 - (1) Professes to describe the education of the Persian soldier.
 - (2) Thought to be intended to laud the Spartan education.
 - (3) Recommends State education, emphasizing military duty, justice (by the study of history), temperance (by practice), and physical training, with no attention to domestic education, individual liberty, or intellectual training.
 - c. In *Economics*: describing the education of women.
 - (1) Relates to the practice at Athens.

- (2) Offers no intellectual training except as the wife is instructed by the husband; chiefly a training in domestic duties, care of household and children, kindness to servants, order, economy, discretion.

Plato (429-348 B.C.)

(Compayré: *Hist. Ped.*, 27-34; Davidson: *Educ. of the Gk. People*, 128-151, *Aristotle & the Anc. Educ. Ideals*, 133-150; Graves: *Hist. Educ.*, 184-197; Hailman: *Hist. Ped.*, 31-41; Kemp: *Hist. Educ.*, 76-78; Mahaffy: *Old Gk. Educ.*, 99-115; Monroe: *Source-Bk.*, 129-264, *Text-Bk.*, 130-146, *Brief Course*, 63-68; Painter: *Hist. Educ.*, 1st ed., 60-62, 2d ed., 67-73, *Ped. Essays*, 7-32; Seeley: *Hist. Educ.*, 63-65; Williams: *Hist. Anc. Educ.*, 165-175.)

1. Life.

a. Early training.

- (1) Son of noble Athenian family — had careful education — early devoted to poetry — pupil of Socrates — began study of philosophy.

b. Teacher.

- (1) Founded the school at Athens, known as "The Academy" — taught gratuitously — became the "great theorizer."

c. Writer on education.

- (1) The *Republic*: The ideal state and a form of socialistic education proper for it.
 (2) The *Laws*: A modification of the Republic — more conservative.

2. Relation to Socrates.

a. Built upon his work.

- b. Agreed as to aim of education: that virtue consisted in

c. Disagreed with Socrates's belief that all minds are capable of attaining knowledge.

3. His theory of ideas.

b. The more nearly perfect the harmony between an object and the idea from which it emanates, the more truly the object will perform its true function, *i.e.* approximate *the good* for that phenomenal existence.

c. **Knowledge is the recognition of this harmony between the object and the idea, *i.e.* of its true function or *the good*.**

d. Dialectic became the study of ideas or the higher intellectual life.

4. His educational ideal.

a. As an essential of social and individual welfare each person should devote his life to that which he is by nature best fitted to do.

b. The function of education should be to determine what each individual is by nature best fitted to do and then to prepare him for this service.

5. The educational scheme of the *Republic*.

a. Ideal society.

(1) The expression of social justice.

(2) Intellectual aristocracy.

(3) **Communist organization.**

b. Analysis of the individual.

- (1) Three faculties: (*a*) intellect or reason; (*b*) spirit or fortitude; (*c*) desire or temperance.
- (2) United they control conduct and form justice or virtue.

c. Analysis of society and its educational needs.

- (1) Three classes: (*a*) philosophers or rulers (cf. intellect), who are devoted to the pursuit of knowledge and whose virtue is wisdom; (*b*) soldiers (cf. spirit), who are devoted to warfare and whose virtue is honor; (*c*) industrial class (cf. desire), who are devoted to trade and whose virtue is money making.
- (2) Membership to be determined not by caste rule, but by development of the individual personality through education, which was to qualify one for the class for which he was by nature fitted.

d. State control recognized.

- (1) Family life to be abolished — no private property — supervision of marriage and children — direction of early training both physical and intellectual.

e. Periods of education.

- (1) 1-7, with mother.
- (2) 7-16, in state school.
- (3) 17-20, in military life.
- (4) 20-30, in higher scientific instruction.
- (5) 30-35, in study of dialectic and philosophy.
- (6) 35-50, in service of State.
- (7) After 50, in retirement, for life of study and contemplation.

- f.* Content of education.
 - (1) Primary: play, physical exercises, fairy tales.
 - (2) Elementary: music and gymnastics.
 - (3) Secondary: military gymnastics.
 - (4) Higher: sciences of mathematics, astronomy, music, followed by dialectic and philosophy.
- g.* Education for women.
 - (1) Practically the same as for men.
 - (2) No sex-distinction in professional life.
- 6. Modifications in the scheme as set forth in the *Laws*.
 - a.* Return to old Greek models.
 - b.* Hereditary prince to rule, together with priests of new religion (based on astrology).
 - c.* Strict supervision of education by the State, especially of the literary element.
 - d.* Education to culminate in mathematics or astrology rather than philosophy.
- 7. Influence of Plato's Theories of Education.
 - a.* Compulsory State education.
 - b.* Adaptation of education to pupils.
 - c.* Education to determine careers and to fit youth for them.
 - d.* Formulation of idea of liberal education.
 - (1) Harmonious development of personality.
 - e.* Outline of curriculum that was followed long after.
 - f.* Emphasis on disciplinary value rather than practical value of studies.
 - g.* Formation of philosophical schools.
 - (1) Establishment of worth of life apart from the practical and from service to State.
 - h.* First organized system of education.

Aristotle (384-322 B.C.)

(Barnard: *Journ. of Educ.*, v. 14, 133-146; Compayré: *Hist. Ped.*, 36-40; Davidson: *Educ. of Gk. People*, 152-176, *Aristotle & the Anc. Educ. Ideals*, 153-202; Graves: *Hist. Educ.*, 197-214; Hailman: *Hist. Ped.*, 31-41; Kemp: *Hist. Educ.*, 79-80; Laurie: *Pre-Chr. Educ.*, 295-300; Mahaffy: *Old Gk. Educ.*, 99-115; Monroe: *Source-Bk. of Hist. Educ.*, 265-294, *Text-Bk.*, 146-160, *Brief Course*, 68-73; Painter: *Hist. Educ.*, 1st ed., 62-65, 2d ed., 73-77, *Ped. Essays*, 33-60; Seeley: *Hist. Educ.*, 65-67; Williams; *Hist. Anc. Educ.*, 176-186.)

1. Life.

- a. First period: born at Stagira in Macedonia — went to Athens and became pupil of Plato.
- b. Teacher: at 47 was teacher of Alexander the Great — at 50 founded the Peripatetic School, called "the Lyceum," at Athens.
- c. Writer: author of *Politics* and *Ethics*, touching upon education — also other works upon logic, rhetoric, psychology, physics, metaphysics, and zoölogy.

2. Relations to Socrates and Plato.

- a. Virtue not possession of knowledge, as they said, but a state of the will.
- b. End of education not knowledge which for them was virtue, but happiness or goodness, the attainment of which brought virtue, *i.e.* instead of the development of the intellect alone, it was the union of the intellect and the will, or knowledge expressed in action.
- c. Reality not *ideas* (Plato) but the performance of the highest function by any phenomenon.

- (1) Ideas have no independent reality, but exist as forms embodied in objects, giving them individuality.
3. His theories and ideals.
- a. Goodness the end of existence for the State as well as for the individual.
 - b. The State to provide organized education as a means to that end.
 - c. Goodness means goodness of intellect (well-being) and goodness of action (well-doing), thus comprehending both individual and social elements.
 - (1) The first the result of teaching, experience, and time.
 - (2) The second the outcome of habit.
 - d. Happiness is then the putting into operation in life with one's fellows of the universal principles of conduct.
4. The educational scheme of the *Politics*.
- a. Adaptation of education to the form of government.
 - b. Aim: to provide properly equipped and properly disposed citizens (constituting a life of intellectual activity and practical service).
 - c. State control of the whole life.
 - d. Three phases of education and their content.
 - (1) First, of the body: by gymnastics, resulting in good habits and self-control.
 - (2) Second, of the irrational part of the soul, that is, the emotions: by music, literature, and æsthetics, providing moral and intellectual culture.
 - (3) Third, of the rational part of the soul, preparing for active service for the State through the sciences and philosophy.
 - e. Periods of education.
 - (1) 1-7, trained by parent: play and moral instruction.

- (2) 7-15, in charge of State: physical exercises, music, writing, drawing.
- (3) 15-21, music, civil and military service.
- (4) After 21, mathematical science and dialectic.
- f. For all citizens.
 - (1) Artisans and slaves excluded as they could not attain citizenship.
- g. Education of women.
 - (1) Very limited, since they were regarded as different from men and not capable of profiting by higher intellectual training.
- 5. Method of education.
 - a. Objective and scientific, as opposed to the introspective method of Plato.
 - b. Inductive and deductive, applied to previous systems of Greek thought and to new fields of investigation.
- 6. Influence of Aristotle.
 - a. Immediate influence not great.
 - b. Founder of modern science by the formulation and application of the inductive method.
 - c. Created system of logical and scientific terminology.
 - d. Originated the doctrine of formal discipline.
 - e. Contributed to the formulation of Christian doctrine.
 - f. Influence extended through spread of his works to other countries and their translation into other languages, especially the Arabic.

Other Writers and Thinkers who influenced Education

- 1. Lycurgus (850-c. 800 B.C.) — lawgiver.
- 2. Solon (c. 638-c. 558 B.C.) — lawgiver.
- 3. Thales (c. 624-548 B.C.) — "father of Greek philosophy."
- 4. Æschylus (524-456 B.C.), Sophocles (497-406 B.C.), and

Euripides (c. 485-406 B.C.) — writers of tragedy who attempted to preserve the old system of morality in opposition to teachings of sophists.

5. Herodotus (484-c. 424 B.C.) — “father of history.”
6. Thucydides (c. 465-c. 400 B.C.) — the most illustrious historian of the Greeks.
7. Protagoras (c. 485-c. 411 B.C.) — one of the greatest of the sophists, to whom is attributed the formula “man is the measure of all things.”
8. Aristophanes (445-380 B.C.) — writer of comedy, a conservative, who parodied the new teachings of the sophists.
9. Isocrates (436-338 B.C.) — rhetorician, pupil of Socrates.
10. Demosthenes (384-322 B.C.) — orator.
11. Pyrrho (365-275 B.C.) — first skeptic.
12. Epicurus (341-270 B.C.) — founder of school of the Epicureans, who made pleasure the end of life.
13. Zeno (340-265 B.C.) — founder of Stoic school of philosophy.
14. Chrysippus (280-209 B.C.) — more scientific Stoic.

Later Greek Education of the Imperial Period (338-146 B.C.)

(Ball: *Hist. Math.*, chs. 4-5; Cajori: *Hist. Math.*, 34-62; Davidson: *Hist. Educ.*, 117-120, *Educ. of the Gk. People*, 177-202, *Aristotle & the Anc. Educ. Ideals*, 206-213; Graves: *Hist. Educ.*, 215-229; Mahaffy: *Old Gk. Educ.*, 116-140; Monroe: *Source-Bk. of Hist. Educ.*, 295-326, *Text-Bk.*, 160-173, *Brief Course*, 73-78.)

I. Character.

- a. Individualistic, rather than social or civic.
- b. Intellectual life greatly esteemed.
- c. Education superficial and showy.

2. Extension of Greek culture.
 - a. Through military conquest, Greek learning, art, and institutions were carried to all cities of the East.
 - b. Theaters, libraries, baths, palaces, schools.
 - c. Universal culture.
3. New types of schools.
 - a. Rhetorical schools.
 - (1) Preparing for practical activities of life.
 - (2) Offering linguistic and literary training solely, through study of rhetoric and public speaking.
 - (3) Later, formal and narrow methods were common.
 - (4) Really a form of private education, but an important part of the higher educational system.
 - b. Philosophical and dialectic schools.
 - (1) Offering training in exposition and criticism of writings without originality.
 - (2) Teaching formal dogmas chiefly.
 - (3) Chief schools: Peripatetics (Aristotle), Academy (Plato), Epicureans (Epicurus), Stoics (Zeno), Skeptics (Pyrrho).
4. Beginnings of universities.
 - a. Outgrowth of the rhetorical and philosophical schools.
 - b. University of Athens.
 - (1) Athens the center of learning — many students — intellectual education universal — schools combined into one institution which the youth were compelled by State to attend.
 - (2) Work in philosophy, science, literature, grammar, and rhetoric — many teachers — pupils from many lands — fees charged — course from 3 to 7 years — student organizations.
 - (3) University later supported by Roman emperors.

c. University of Alexandria.

- (1) Displaced Athens in third century A.D. as center of culture.
- (2) Grew out of library and museum founded by the Ptolemies about 300 B.C.
 - (a) Greek, Egyptian, Babylonian, Assyrian, and Jewish manuscripts.
- (3) Taught philosophy, letters, science, theology.
 - (a) Zoroastrianism, Judaism, Hellenistic philosophy, Christianity.
- (4) Distinguished scholars: Clement, Origen, Euclid, Archimedes, Diophantes.
- (5) Destroyed in 640 A.D. in Mohammedan conquest.

ROMAN EDUCATION

(Browning: *Educ. Theories*, 26-43; Compayré: *Hist. Ped.*, 43-60; Davidson: *Hist. Educ.*, 105-111; Graves: *Hist. Educ.*, 230-271; Hailman: *Hist. Ped.*, 42-51; Kemp: *Hist. Educ.*, 84-96; Laurie: *Pre-Chr. Educ.*, 301-436; Monroe: *Source-Bk.*, 327-509, *Text-Bk.*, 176-213, *Brief Course*, 81-99; Painter: *Hist. Educ.*, 1st ed., 65-79, 2d ed., 77-80.)

Introduction

1. National characteristics.

- a. Geographical situation compelled an aggressive spirit.
- b. Genius of the people: practical, subordinating the individual to the State, with respect for law and love for military life.
- c. The family very important.
 - (1) Absolute authority of the father.
 - (2) High respect for and great influence of the mother.

- d.* Social classes : patricians, plebeians, and slaves.
- e.* Religion : nature worship, personification.
- 2. Ideals of Roman education.
 - a.* Based upon clearly defined rights with correlative duties.
 - b.* Aimed at practical virtues, as exemplified in living men or well-known historical personages.
 - c.* Life was conceived in terms of duty.
 - (1) The home the starting place.
 - (2) The study of biography for types of manhood.
 - (3) Imitation the chief characteristic.

Early Roman Education (776-250 B.C.)

(Compayré: *Hist. Ped.*, 43-45; Davidson: *Hist. Educ.*, 106-108; Graves: *Hist. Educ.*, 236-245; Laurie: *Pre-Chr. Educ.*, 301-323; Monroe: *Source-Bk.*, 327-345, *Text-Bk.*, 176-193, *Brief Course*, 86-88; Painter: *Hist. Educ.*, 1st ed., 65-67, 2d ed., 77-80; Williams: *Hist. Anc. Educ.*, 187-200.)

- 1. Aim : practical, moral, social.
- 2. Organization : centered in the home — the child in the mother's charge — the boy in the father's care.
- 3. Content : Laws of the Twelve Tables, religious and choral service, practical training in business, farming, civic duties, and military life, reading, writing, rudimentary calculation, for boys ; and household duties for girls.
- 4. Method : imitation, practice, apprenticeship.
- 5. Effect : a nation of warriors and loyal citizens, a selfish and stern people, narrow and without high ideals, thoroughly practical — an effective training for a small state.

Roman Education under Greek Influence (250 B.C.-200 A.D.)

(Compayré: *Hist. Ped.*, 45; Davidson: *Hist. Educ.*, 109-111, *Educ. of Gk. People*, 203-229; Graves: *Hist. Educ.*, 245-267; Kemp: *Hist. Educ.*, 85-88; Laurie: *Pre-Chr. Educ.*, 323-354, 393-394; Monroe: *Source-Bk.*, 342-355, 371-420, *Text-Bk.*, 193-206, *Brief Course*, 88-95; Painter: *Hist. Educ.*, 1st ed., 68-71, 2d ed., 81-85; Preston & Dodge: *Priv. Life of Roms.*, ch. 3; Seeley: *Hist. Educ.*, 74-80; Williams: *Hist. Anc. Educ.*, 201-233.)

1. Conditions effecting a change.
 - a. Political expansion of Rome and ultimate conquest of Greece by Rome.
 - b. Coming of Greek slaves, freedmen, and teachers to Rome.
 - c. Introduction of Greek customs and ideas, with gradual absorption of Greek culture.
2. Aim: increasingly literary, intellectual, and individual, leading to a mastery of the language, at the same time retaining its old practical purpose.
3. Organization and content.
 - a. Elementary school: the *ludus*, also called the school of the *literator*, or of the Greek *grammatist*, instruction in reading, writing, arithmetic, Greek, translation of Homer's *Odyssey*, some Latin works, the *Laws of the Twelve Tables*.
 - b. Secondary school: the school of the *grammaticus*, including both the Greek and the Latin grammar schools: giving instruction in the Greek and Latin languages and literatures, history and science, some mathematics, dialectics, music, and declamation.
 - c. Higher school: the school of the *rhetor*, providing prep-

aration for the duties of orator, lawyer, and public official: giving instruction in literature, science, philosophy, history, law, oratory, debate, public speaking.

d. Gymnastics not taught in school but in military life.

4. Methods: memoriter and imitative in elementary work, including learning by heart, reproduction, paraphrase, dictation, and composition—much practice in disputation and debate in higher grades, with training in analysis, criticism, elaboration, and argumentation.
5. Teachers.
 - a.* In early times, no license nor qualifications were required—remuneration small—social status low.
 - b.* In later times, through Greek influence and training, better preparation was demanded, much skill found, literary culture necessary, teachers well paid by fees or even by State, and held in considerable esteem.
6. Other evidences of educational activity.
 - a.* Libraries and universities: the former brought over from Greece—many founded later by emperors—made nucleus of universities—the latter gave formal instruction in literature, law, medicine, philosophy, architecture, mechanics, and mathematics.
 - b.* State schools: in most towns—supported but not supervised by State—teachers granted special privileges: salaries, license, scholarships.
 - c.* Roman literature: poets, dramatists, historians, philosophers, moralists flourished, of whom notable examples are Horace, Vergil, Terence, Plautus, Cæsar, Sallust, Nepos, Livy, Tacitus, Cicero, Seneca, Quintilian, Martial, Pliny, Juvenal, Suetonius, Marcus Aurelius, etc.

Roman Educational Theorists

Cicero (106-43 B.C.) — Statesman, Orator, and Philosopher
(Laurie: *Pre-Chr. Educ.*, 350-352; Monroe: *Source-Bk.*, 421-444, *Text-Bk.*, 207, *Brief Course*, 96; Painter: *Hist. Educ.*, 1st ed., 71-73, 2d ed., 85-89, *Ped. Essays*, 83-96; Seeley: *Hist. Educ.*, 81-84; Williams: *Hist. Anc. Educ.*, 237-240.)

1. Life and training.

a. Born of good family — studied literature and philosophy at Rome, at Athens, and in Asia — entered political life — filled many offices — was banished — devoted himself to study and writing — author of many books on philosophy, oratory, rhetoric, politics, criticism, among them *De Oratore*.

2. His ideal: the training of an orator who was to be the practical educated man of the world.

3. His theories.

a. Education should begin with earliest childhood.

b. The environment and occupation of the child should be favorable to refinement and development.

c. Religion and moral culture important elements in education.

d. Individual tastes and talents should determine the vocation.

e. Memory to be trained by committing many selections.

f. Much writing develops fluency of expression and clearness of judgment.

g. The arts through which one serves the State constitute the greatest wisdom and the highest virtue.

h. Broad knowledge of things and of men is essential to liberal culture and efficiency in life.

i. A graceful and forceful style should be cultivated.

Seneca (3 B.C.-65 A.D.) — Statesman, Stoic Philosopher, and Writer

(Monroe: *Source-Bk. of Hist. Educ.*, 393-400, *Text-Bk.*, 206, *Brief Course*, 96; Painter: *Hist. Educ.*, 1st ed., 74-76, 2d ed., 89-93, *Ped. Essays*, 97-102; Seeley: *Hist. Educ.*, 84-86; Williams: *Hist. Anc. Educ.*, 240-244.)

1. Life and training.
 - a. Son of teacher of rhetoric — trained in oratory — studied Stoic philosophy — became lawyer and entered public life — was banished — devoted himself to philosophy and to writing — author of numerous works, among them *On the Education of Children*.
2. His educational ideal: that education should be (a) emphatically moral, in order to correct the evil tendencies of nature; and (b) practical, in order to prepare for a life of thought and action.
3. His educational and philosophical theories.
 - a. Goodness is the supreme end of life.
 - b. Philosophy is the chief of liberal sciences.
 - c. Teaching should be adapted to the capacities of pupils.
 - d. Example and environment are stronger than precept.
 - e. Narrow thoroughness is better than superficial breadth.
 - f. Discipline and gymnastics in moderation are both of value.
 - g. Teachers should be worthy of high respect.
 - h. Direct imitation is the most effectual method.

Quintilian (35-95 A.D.)

(Barnard: *Journ. of Educ.*, v. 11, 110-132; Browning: *Educ. Theories*, 26-34; Compayré: *Hist. Ped.*, 47-52; Davidson: *Aristotle & the Anc. Educ. Ideals*, 214-224; Kemp: *Hist.*

Educ., 88-89; Laurie: *Pre-Chr. Educ.*, 355-389; Monroe, *Source-Bk.*, 445-509, *Text-Bk.*, 207-208, *Brief Course*, 96; Painter: *Hist. Educ.*, 1st ed., 76-79, 2d ed., 93-97, *Ped. Essays*, 103-124; Seeley: *Hist. Educ.*, 86-88; Williams: *Hist. Anc. Educ.*, 244-254.)

1. Life and work.

a. Born a Spaniard — became a Roman teacher of rhetoric — was first public instructor that was paid by State, occupying the chair of oratory at Rome — author of *Institutes of Oratory*.

2. His aim: to train "the good man skilled in speaking."

3. His educational scheme and doctrines.

a. Elementary education.

- (1) In hands of parent, nurse, and teacher.
- (2) To be begun in infancy.
- (3) Child's tastes and capacities to be studied.
- (4) Amusements to be utilized as means of instruction.
- (5) Progress to be slow and thorough.
- (6) No corporal punishment.
- (7) Instruction to include writing (tracing copies cut in wood or wax), reading, moral instruction, learning by heart.
- (8) Methods to be attractive rather than compulsory.

b. Secondary education.

- (1) Public school preferable to private both for moral training and for excellence of instruction.
- (2) Instruction to include the art of speaking and writing, the practice of critical judgment, music, astronomy, philosophy, grammar, literature (Greek before Latin), geometry.
- (3) Eloquence and forceful speaking depend upon broad

knowledge and high character more than upon fluency of speech and oratorical formulæ.

c. Higher education.

- (1) Teacher should be chosen for moral character and ability.
- (2) Imitation should be encouraged.
- (3) Teachers and pupils should have mutual regard.
- (4) Allowance should be made for pupil's age and ability.
- (5) Natural talents to be developed.
- (6) Oratorical education closely connected with general interests of humanity.
- (7) A great orator must be a good man.
- (8) Instruction to include rhetoric, literature, philosophy, dialectic, ethics, physics, and mathematics.
- (9) Much exercise in public speaking and disputation is desirable.

Decline of Roman Education (200-476 A.D.)

(Graves: *Hist. Educ.*, 267-270; Laurie: *Pre-Chr. Educ.*, 389-411, *Rise & Early Const. of Univs.*, ch. 1; Monroe: *Source-Bk.*, 371-420, *Text-Bk.*, 208-218, *Brief Course*, 96-99.)

1. Decadence of Roman society.

- a.** Extension of the privileges of Roman citizenship and its consequent deterioration.
- b.** Causes: despotism, corruption, taxation, extravagant aristocracy, immorality.
- c.** Education remained institutionally the same, but was not a practical training for the whole people but an adornment for the upper class only.
- d.** Schools multiplied — State support more widely granted — teachers better paid and more highly esteemed.

- e. Formal pedantic culture — superficial erudition — ostentation.
- f. Study of philosophy given up.
- g. The practical merits of Roman education and the liberalizing tendencies received from Greek influence entirely disappeared.

EDUCATION DURING THE MIDDLE AGES

EARLY CHRISTIAN EDUCATION (TO ABOUT THE 6TH CENTURY)

(Barnard: *Journ. of Educ.*, v. 24, 337-370, 525-544; Compayré: *Hist. Ped.*, 61-67; Davidson: *Hist. Educ.*, 117-13; *Educ. of Gk. People*, ch. 9, *Aristotle & the Anc. Educ. Idea*, 231-235; Graves: *Hist. Educ.*, 272-298; Hailman: *Hist. Ped.*, 52-62; Kemp: *Hist. Educ.*, 97-108; Laurie: *Pre-C. Educ.*, 389-411, *Rise & Early Const. of Univs.*, 7-38, 52-5; Monroe: *Text-Bk.*, 221-243, *Brief Course*, 101-110; Painter: *Hist. Educ.*, 1st ed., 80-93, 2d ed., 102-118, *Ped. Essays*, 14-154; Robinson: *Readings in European Hist.*, 14-35; Seele: *Hist. Educ.*, 89-115; Williams: *Hist. Med. Educ.*, 17-39-61.)

Note: The educational problem at the beginning of the Christian Era was the promotion of the welfare of society through the development of the individual.

Contribution to Individualism before the Introduction of Christianity

1. By the Jews.
 - a. Lofty conception of religion and morality.
 - b. Righteousness the mark of civic culture.
 - c. Moral discipline and responsibility.
2. By the Greeks.
 - a. Advanced intellectual and æsthetic ideals.

- Failure of All These Nations to reach Solution of the Problem. because**

- ## The Larger Ideals of Christianity

1. The Founder, Jesus of Nazareth.
2. His mission.
 - a. The unity of the race.
 - b. The moral and spiritual development of the individual.
 - c. The recognition by man of the will of God.
3. His doctrines that effected education.
 - a. Emphasis on moral and spiritual nature of man.
 - b. Fatherhood of God and brotherhood of man.
 - (1) Hence education should be universal.
 - (2) Class distinctions are eliminated.
 - c. Woman the equal of man.
 - d. Children the gift of God.

- e. Recognition of personality.
- f. Universal individualism.

Pagan Conditions that needed Reform

1. Social.
 - a. Moneyed aristocracy.
 - b. Corrupt civic and governmental methods.
 - c. Loose family and social morals.
2. Religious.
 - a. Formal worship.
 - b. Immoral and wanton ceremonial.
 - c. Skepticism.
3. Philosophical and educational.
 - a. Superficial and unethical ideals.
 - b. Ostentation.
 - c. Class privileges.

Aim of the Early Christian Schools

1. Moral more than intellectual.
 - a. Hence enabled to reach the masses.
2. "Other-worldly."
 - a. Mundane pleasures and satisfactions sacrificed for spiritual development.

Kinds of Christian Schools and their Purposes

1. Catechumenal.
 - a. For converts to Christianity.
 - b. Instruction in moral and religious teachings, reading, writing and memorizing of the Scriptures, psalmody.
 - c. To qualify for membership in the Christian church.
2. Catechetical.
 - a. For Christian teachers and leaders.

- b.* Instruction in theological doctrine, also pagan philosophy, literature, and science.
 - c.* To defend the faith, to combat heresies, and to formulate Christian doctrine.
- 3. Cathedral or episcopal.
 - a.* For the training of the clergy.
 - b.* Instruction in doctrine, ritual, the seven liberal arts, singing and the duties of public religious service.

Relations of Christianity to Græco-Roman Culture

1. **Influence of Greek thought.**
 - a. Tendency to amalgamate through likeness of aim : viz. to seek truth.
 - b. Spread of heresies.
 - c. Dialectic methods of teaching.
2. **Influence of Roman thought.**
 - a. Formulation of doctrine.
 - b. Organization of the church.
3. **Opposition to "worldly" ideal of pagan education.**
 - a. Secular literature not approved by the church.
 - b. Much of the philosophy not consistent with ethical mission of Christianity.
4. **Though rendered more formal and less spiritual, Christianity owed its preservation to this pagan influence of system and organization.**

MONASTICISM AND EDUCATION (6TH TO 12TH CENTURIES)

(Davidson: *Aristotle & the Anc. Educ. Ideals*, 239-247; Graves: *Hist. Educ.*, 294-296; Green: *Hist. of Eng. People*, 50-52; Kemp: *Hist. Educ.*, 109-121; Laurie: *Rise & Early Const. of Univs.*, 54-74; Monroe: *Text-Bk.*, 243-274, *Brief*

Course, 110-124; Painter: *Hist. Educ.*, 1st ed., 99-104, 111-112, 2d ed., 118-122; Seeley: *Hist. Educ.*, 116-120; William: *Hist. Med. Educ.*, 56-59.)

Its Origin and Nature

1. Asceticism.
 - a. Belief in the necessity of retirement, contemplation, prayer, and discipline to the attainment of ideal spiritual life.
2. In other religions.
 - a. Among the Hebrews.
 - b. In the oriental nations.
3. In Christian church, due to
 - a. Belief in second coming of Christ.
 - b. Oppression and corruption of Roman Empire.
4. Distinction between the ideals of the East and the West.
 - a. Oriental asceticism centered in contemplation.
 - b. Occidental asceticism added the element of work to its ideal.

Ideals and Scope of Monastic Life and Education

1. Vows of chastity, poverty, and obedience.
 - a. Renunciation of family life.
 - b. Advancement of church rather than material welfare.
 - c. Recognition of authority of God rather than that of the State.
2. Discipline of physical nature to develop moral and spiritual perfection.
3. Monastic rules.
 - a. Prayer, religious service, discipline, work, study, teaching.

4. Schools.
 - a. For instruction of monks and those who intended to enter the monastic order (*oblats* or *interni*).
 - b. For promotion of study of religious writings.
 - c. For copying of books.
 - d. For instruction of others who desired only the advantages of education (*externi*).
5. Social importance.
 - a. Moral, religious, and intellectual centers.
 - b. Supplied protection and assistance to people.
 - c. Encouraged development of the arts and sciences.
 - d. Preserved and transmitted learning.

Monastic Schools

1. Organization and content.
 - a. Primary: reading, writing, Latin psalter, singing, church service, elementary arithmetic.
 - b. Secondary and higher: *trivium* and *quadrivium*, comprising the Seven Liberal Arts.
 - (1) Trivium: grammar, rhetoric, and dialectic or logic.
 - (2) Quadrivium: arithmetic, geometry, astronomy, and music (dialectic also continued with these studies).
 - (3) Theology added to course later.
2. Methods.
 - a. Memorizing and imitation.
 - b. Use of wax tablets and stylus.
 - c. Question and answer method.
 - d. Dictation.
3. Education of women.
 - a. Convents for women offered considerable advantages in education, although much less extensive than those in the monasteries.

Other Educational Activities of the Monasteries

1. Copying of manuscripts (*scriptorium*).
2. Collecting and preserving of books: libraries.
3. Production of literary works: chronicles, commentaries, biographies of religious men and women, educational treatises.
4. Exposition of the seven liberal arts.
 - a. Martianus Capella: *De Nuptiis Philologiae et Mercurii*, textbook and commentary of all learning.
 - b. Boethius: various books on Greek philosophy, logic, ethics, music, and mathematics.
 - c. Cassiodorus: educational treatises and textbooks on Latin culture.
 - d. Isidore de Seville: *Etymologies*, an encyclopedia of knowledge in twenty books.
 - e. Aldhelm: books on arithmetic, astrology, history, religion, and Latin prosody.
 - f. Bede (the Venerable): commentaries on the Holy Scriptures, textbooks on grammar, history, and chronology a history of the church and one of the English people.

Monasteries influential through their Educational Activities

1. Fulda and Hirschau in Germany.
2. Mount Cassino in Italy.
3. Cluny, Bec, and Tours in France.
4. St. Gall in Switzerland.
5. Glastonbury, Malmesbury, and Canterbury in England.
6. Salzburg in Austria.
7. Iona in Scotland.
8. Armagh in Ireland.

**HARLEMAGNE AND THE EDUCATION OF THE PALATINE SCHOOL
(771-814)**

Compayré: *Hist. Ped.*, 71-73; Davidson: *Hist. Educ.*, 151-158; Guizot: *Hist. Civ.*, v. 2, art. on Charlemagne and Alcuin; Kemp: *Hist. Educ.*, 122-124; Laurie: *Rise of Univs.*, 43-55, 67-72; Monroe: *Text-Bk.*, 274-279, *Brief Course*, 125-128; Painter: *Hist. Educ.*, 1st ed., 104-106, 2d ed., 122-125, *Ped. Essays*, 155-168; Seeley: *Hist. Educ.*, 125-131; West: *Alcuin & the Rise of the Chr. Sch.*; Williams: *Hist. Med. Educ.*, 62-90.)

The Importance and Scope of his Work

1. Political.
 - a. Emperor of Rome.
 - b. Ruler of France, Germany, Austria, Italy, and parts of England.
2. Social.
 - a. Raised the intellectual level of his people.
 - b. Advanced the work and influence of the Christian church.
3. Educational.
 - a. Founded schools, for which he secured best qualified teachers, even from Rome and England.
 - b. Encouraged the monasteries to establish schools.
 - c. Urged better education for the clergy.
 - d. Favored universal, compulsory education.
 - e. Promoted the development of the German language.
 - f. Became himself a student of Latin, Greek, music, and science.

His Efforts for Educational Reform

1. Invited Alcuin from York, England, to revive interest in learning.
2. Through Alcuin he established the Palatine School at the court.
3. Issued three capitularies (787, 789, and 802) to monks and clergy, commanding them to study and to maintain schools in all the monasteries and churches.
 - a. Boys to be taught the psalms, musical notation, singing, arithmetic, grammar.
 - b. Adults to be instructed in the liberal arts and the Holy Scriptures.
 - c. Capitulary of 802 was general proclamation providing instruction for the laity as well as the clergy.
4. Brought from Rome excellent teachers of music, grammar, and arithmetic.

Work of the Palatine School

1. Aim: to be model school.
2. Pupils: sons and daughters of the nobles.
3. Content: elementary and secondary, including the seven liberal arts, also Greek and natural history.
4. Method: chiefly catechetical or "question and answer."
5. Textbooks: written by Alcuin on grammar, rhetoric, dialectic, arithmetic, and "the seven liberal arts."

Other Educational Work that grew out of this Movement

1. Alcuin (735-804).
 - a. Became abbot of the monastery of Tours.
 - b. His school here became the center of learning and of influence in the church.

- c. Built up an important library.
- 2. Rabanus Maurus (776-856).
 - a. Pupil of Alcuin.
 - b. Became abbot of Fulda, Germany.
 - c. Was student and teacher of Greek.
 - d. Wrote *de Compulo*, based on the works of Boethius and Bede; also *de Clericorum Institutione* (the education of the clergy); and compiled an encyclopedia similar to that of Isidore of Seville.
- 3. Joannes Scotus Erigena (810-875).
 - a. Successor to Alcuin in Palatine School.
 - b. Had broad knowledge of Greek language and ancient learning.
 - c. Was the first to apply dialectics to theology, thus being the forerunner of scholasticism.

Effect of this Revival

- 1. Monastic, episcopal, and rural or parish schools were founded in considerable numbers.
- 2. Work and influence of the Christian church enhanced by better educated clergy.
 - a. Various church councils continued to promote the work of education.
- 3. May be said to be the beginnings of popular instruction by State authority.
- 4. Unified the Frankish empire.
 - a. By increase of use of the mother tongue.

EDUCATIONAL WORK OF KING ALFRED OF ENGLAND (871-901)

(Besant: *The Story of Alfred the Great*; Bowker: *Alfred the Great*; Kemp: *Hist. Educ.*, 125; Laurie: *Rise & Const. of Univs.*, 32-39, 52-53.)

National Reforms of Government effected by Alfred

1. Creation of fleet for coast defense.
2. Reorganization of army and training in arms.
3. Construction of fortified camps.
4. Encouragement of exploration and commercial intercourse with Europe.

His Educational Efforts

1. Established schools, following example of Charlemagne.
2. Directed compilation of portions of the *Anglo-Saxon Chronicle*, a source book of knowledge of Teutonic conquest of England.
3. Codified the laws, making principle of morality the basis of the legal system.
4. Imported teachers from the continent.
5. Wrote treatises and translated foreign works into the English language.
6. Is said to have laid the foundation of Oxford University.

CHIVALRY AND THE EDUCATION OF THE KNIGHT (11TH-14TH CENTURIES)

(Gautier: *Chivalry*; Kemp: *Hist. Educ.*, 132-135; Monroe: *Text-Bk.*, 284-291, *Brief Course*, 147-150; Painter: *Hist. Educ.*, 1st ed., 107-110, 2d ed., 126-128; Seeley: *Hist. Educ.*, 132-135; Williams: *Hist. Med. Educ.*, 95-104.)

Origin of Chivalry

1. In feudalism.
 - a. The knight was the successor of the Germanic warrior chieftain.
2. In the influence of the Christian church upon the Northern barbarians.

- a. Embodied the better elements of the warrior character refined and ennobled.

Character and Ideals of Chivalry

1. Direct contrast of monasticism.
 - a. Physical strength and vigor valued as well as perfection of the moral nature.
2. Social discipline.
 - a. Major virtues: service, love, honor, loyalty, piety.
 - b. Minor virtues: courtesy, courage, obedience, respect for women.
3. Suggestive of modern notions of a gentleman and a lady.

Educational Scheme

- . 1-7 years: in care of mother.
- . 7-14 years: as page in attendance upon a knight and the ladies of the court, in household and court service — learned music, chess, poetry, and manners.
- . 14-21 years: as squire or companion of a knight — pursued physical and military training; hunting, fencing, justing, riding, swimming; also studied religion, singing, minstrelsy, and the harp.
- . After 21 years: became knight, through religious ceremony — took vows to defend church, to speak truth, and to respect womankind — learned French, more music, poetry, and military duties (the intellectual element in this training was, however, subordinate.)
- . Training of girls: was much like that required of boys, though not so broad, and included reading, singing, playing stringed instruments, writing, poetry, religion, French, often Latin, manners, and needlework, besides physical exercises.

Value of Chivalry

1. Duty of noble service was recognized.
2. Gave a high place to women.
3. Emphasized unselfishness and courtesy.
4. Improved manners and speech.
5. Recognized obligations to inferiors.
6. Developed the native languages and literatures.
 - a. The German *Minnesongs*.
 - b. The songs of the French *troubadours*.
 - c. The ballads of the English, Scotch, and Irish minstrels.

SCHOLASTICISM AND EDUCATION (9TH-14TH CENTURIES)

(Barnard: *Journ. of Educ.*, v. 24, 368-374; Compayré: *Hist. Ped.*, 74-75, *Abelard and the Origin & Early Hist. of the Univs.*; Davidson: *Hist. Educ.*, 159-165; Green: *Shorter Hist. of Eng. People*; Guizot: *Hist. of Civ.*, v. 3; Hallam: *Europe in the Middle Ages*, 426-433; Haureau: *Histoire de la Philosophie Scolastique*; Kemp: *Hist. Educ.*, 126-129; Laurie: *Rise of Univs.*, chs. 3-4; Monroe: *Text-Bk.*, 292-313, *Brief Course*, 128-133; Seeley: *Hist. Educ.*, 121-124; Williams: *Hist. Med. Educ.*, 143-146.)

Conditions that led to the Development of Scholastic Theology

1. Popularity of the study of Greek philosophy.
 - a. Due to the introduction of Saracen learning.
2. Unrest in intellectual thought.
3. Desire for a system of rational philosophy to explain the doctrines of the church.
4. Lack of secular literature and of intercourse with the world.
 - a. Emphasized by the crusades.

Meaning of Scholasticism

1. An endeavor to bring Greek philosophy into the service of theology.
2. The reduction of religious thought to logical form.
3. A type of intellectual activity.

Aim of the Schoolmen

1. To strengthen faith by the development of the reason.
2. To train logical power and the ability to dispute.
3. To systematize knowledge.
4. To give mastery of this knowledge.

Content of Study

1. Aristotle's metaphysics, physics, psychology, and ethics.
2. Plato's theory of ideas.
3. Doctrine of universals.
 - a. Realism: theory that universal truths or ideas alone possess reality and exist as archetypes in the Divine mind.
 - b. Nominalism: theory that universal truths are but names, and possess no reality apart from the individual facts or objects in which they are identified.
 - c. Conceptualism: theory that universal truths possess reality only as concepts of the human mind.
4. Doctrines of the church.
 - a. Interpretation of orthodox views in terms of philosophy.
 - b. Attempt to bring faith and reason into harmonious relations.
5. Scholastic texts.
 - a. The *Sententia* of Peter Lombard.
 - b. *Summa Theologiae* of Thomas Aquinas.
 - c. *Sic et Non* of Peter Abelard.

Methods of the Schoolmen

1. Logical analysis and systematic organization.
 - a. Ultralogical rather than psychological.
 - b. Division of truth into heads, subheads, etc.
 - c. Consideration of several interpretations and their particular merits, before forming the conclusion.
2. Following the form of questions sometimes instead of propositions.
3. No adaptation to mental development.
4. Dialectic method of a very formal kind.

Noted Schoolmen

1. Scotus Erigena : forerunner.
2. Anselm : father of scholasticism in the West.
3. Peter Lombard : author of scientific system of theology.
4. Peter Abelard : founder of conceptualism.
5. Albertus Magnus : first stated the philosophy of free inquiry in systematic form.
6. Thomas Aquinas : applied the deductive method of Aristotle to theology.
7. William of Occam : opposed realism and held fast to faith.
8. William of Champeaux : eminent realist.

Value of Scholasticism

1. Reached only formal truths.
 - a. Dealt with abstract material.
2. Argument more regarded than the validity of the conclusion.
3. Knowledge was given philosophic form.
4. Problems had theological bearing.
 - a. Hence raised the intellectual level of the clergy.

5. Awakened the minds of men.
6. Demanded keen intellectual development.
7. Prepared the way for the universities and the Renaissance.

GUILD AND BURGHER SCHOOLS (11TH-13TH CENTURIES)

(Kemp: *Hist. Educ.*, 136-137; Monroe: *Text-Bk.*, 338-339, *Brief Course*, 156-157; Painter: *Hist. Educ.*, 1st ed., 110-111, 2d ed., 128-129; *U. S. Com'r Educ. Rept.*, 1897-1898, v. 1, 18-26; Williams: *Hist. Med. Educ.*, 104-108.)

Causes leading to their Establishment

- . Rapid growth of cities.
- . Increasing importance of trading and artisan classes.
- . Organization of trades and other guilds.

Character of the Schools

- . Guild schools.
 - a. Elementary and grammar grades, with instruction in reading, writing, arithmetic, Latin, and often the vernacular language, besides rudimentary history, geography, and natural science.
 - b. Usually conducted by members of the clergy as teachers.
 - c. Supported by merchant or trade guilds.
- . Burgher schools.
 - a. Instruction similar to above with special reference to the economic interests and demands of the cities.
 - b. Controlled largely by secular authorities.
 - c. Lay teachers more and more numerous.
- . Attitude of Church and State.
 - a. Contended long for control of these schools.
 - b. Civil authorities eventually won.

4. Teachers.
 - a. Poorly paid.
 - b. Often itinerant.
 - c. Meager qualifications.
 - d. No suitable place provided for school.

Influence of these Schools

1. Met the demand for a practical education suited to the needs of special classes.
2. May have been the foundations of the modern public elementary school.

SARACEN LEARNING (9TH-13TH CENTURIES)

(Ball: *Hist. Math.*, 140-156; Cajori: *Hist. Math.*, 84-124, 131-138; Davidson: *Hist. Educ.*, 133-150; Kemp: *Hist. Educ.*, 130-132; Laurie: *Rise of Univs.*, 88-90; Monroe: *Text-Bk.*, 331-334, *Brief Course*, 154-155; Painter: *Hist. Educ.*, 1st ed., 114, 2d ed., 132-133; Seeley: *Hist. Educ.*, 143-147; Williams: *Hist. Med. Educ.*, 110-112.)

Early Intellectual Progress of the Saracens

1. Spread by force of Mohammedan arms over large portions of Asia, Africa, and Europe.
2. Advanced by attention to learning along with growth of political power.
3. Promoted by contact with Hindu, Byzantine, and Alexandrian learning.
4. Enhanced by libraries and translations of Greek works into Arabic.

Extent of their Learning

- **Mathematics**: arithmetic, algebra, arabic numerals (obtained from India), trigonometry, translations of Greek mathematical works.
- **Chemistry and physics**: discovery of nitric and sulphuric acids, oxidized mercury and alcohol — preparation of caustic alkali — properties of gases understood — table of specific gravities and height of atmosphere calculated — refraction, reflection and theory of vision studied — application of pendulum to clocks and calculation of time.
- Astronomy**: determination of a degree of the earth's surface, of the obliquity of the ecliptic, of the length of the year, of the rate of progression of the equinoxes — correction of Ptolemy's astronomical tables — theory of the movement of planets in ellipses — construction of "tubes with glasses" for observation, of observation towers, of the armillary sphere, of mural quadrants, and of globes for geographical studies.
- Medicine and surgery**: properties of drugs understood — operations performed in general surgery and obstetrics — medical books written and hospitals provided.

Schools of the Saracens

- In connection with every mosque.**
- Usually private with fees for tuition.**
- In large cities, institutions for higher instruction.**
- Included professional schools of medicine and surgery.**
- Provided lectures on literature, rhetoric, grammar, composition, mathematics, astronomy, and general science.**

Saracen Influence in Europe

1. Through the crusades students of Europe came into contact with the Saracen learning.
2. Their schools in Spain were attended by European youths.
3. Science thus brought into Christian countries stimulated intellectual activity.
4. The works of Aristotle, of Euclid, and of the Hindu philosophy, mathematics, and literature were introduced into Europe.

THE RISE OF THE UNIVERSITIES (12TH-15TH CENTURIES)
 (Barnard: *Journ. of Educ.*, v. 6, 9-66, v. 9, 49-111, v. 22, 330, v. 24, 745-776, v. 27, 817-944, v. 28, 369-448; Compagnon: *Abelard & the Origin & Early Hist. of Univs.*; Davis: *Hist. Educ.*, 166-174; Hallam: *Europe in the Middle Ages*, 420-426; Kemp: *Hist. Educ.*, 138-145; Laurie: *Rise of Univs.*, 91-293; Monroe: *Text-Bk.*, 313-327, *Brief Course*, 138-147; Painter: *Hist. Educ.*, 1st ed., 115-117, 2d ed., 138; Paulsen: *Germ. Univs.*, 16-57; Robinson: *Int. Hist.*, 446-450; Seeley: *Hist. Educ.*, 139-142; Williston: *Hist. Med. Educ.*, 131-161.)

Causes of the Rise of Universities

1. Newly awakened scientific spirit.
2. Increase of knowledge.
3. Development of secular interests: commercial, social, governmental.
4. Effect of the intellectual movements of the preceding centuries, viz.: church and monastic schools, scholasticism, chivalric education, burgher schools and organizations, municipalities, the crusades, and the stimulation of scientific learning.

Character of the Universities

1. Free association of learned men and aspiring youths.
2. Special schools for advanced professional study.
3. Independent of Church and State.

Organization and Special Features of the Universities

- i. Democratic in government.
- ii. Student body divided into "nations."
 - a. Charters and privileges granted separately or to group organizations.
 - b. In southern universities, these organizations were controlled by the students; in northern universities, by the masters.
- iii. Rector, the official head of the university.
 - a. Council, elected by nations, acted with rector as governing body.
- iv. Faculties, a development later than the nations.
 - a. Applied first to the department of study, then to the body of men in control of such department.
- v. Special privileges.
 - a. Exemption from military service and taxation.
 - b. Internal jurisdiction.
 - c. Granting of degrees which carried with them a license to teach.

Typical Universities

- i. Salerno (about 1080).
 - a. Started under monastic influence.
 - b. First a special school of medicine.
 - c. Constantine, of Carthage, great lecturer.
 - d. United later with schools of Naples.

2. Bologna (about 1158).
 - a. Grew out of interest in litigation.
 - b. Union of schools of law in northern Italy.
 - c. Irnerius, famous teacher of law.
 - d. Instruction in civil law, then canon law, and later theology and arts.
 - e. Large number of students.
3. Paris (about 1180).
 - a. Outgrowth of cathedral school.
 - b. Instruction in philosophy and theology; later canon law, civil law, and medicine.
 - c. Great teachers: Peter Abelard, Peter Lombard, William of Champeaux.
 - d. Great popularity and influence.

Teachers and Students

1. Teachers: lecturers called doctors or masters.
 - a. In private homes or rented houses.
 - b. Received fees from students.
2. Students.
 - a. Many nationalities — often mere boys.
 - b. Students' guilds — special dress — riotous living.
 - c. Many itinerants.
3. Discipline lax.
 - a. Frequent conflicts with town authorities.

Influence of the Early Universities

1. Stood for freedom of intellectual thought and of speech.
 2. Were a force in political affairs and in church controversies.
 3. Trained leaders.
 4. Spread through interchange of students.
-

EDUCATION DURING THE PERIOD OF THE RENAISSANCE

EDUCATION DURING THE PERIOD OF THE RENAISSANCE (14TH-16TH CENTURIES)

(Barnard: *Journ. of Educ.*, v. 4, 622-628, 714-728, v. 5, 65-78, v. 7, 413-460; Browning: *Educ. Theories*, 44-60; Cajori: *Hist. Math.*, 138-139; Compayré: *Hist. Ped.*, 83-111; Davidson: *Hist. Educ.*, 175-189; *Encyclopedia Brit.*, art. on Renaissance; Guizot: *Hist. Civ.*, v. 1, chs. 11-12; Kemp: *Hist. Educ.*, 149-161; Monroe: *Text-Bk.*, 351-400, *Brief Course*, 160-188; Painter: *Hist. Educ.*, 1st ed., 120-135, 2d ed., 140-153; Quick: *Educ. Refs.*, 1-26; Russell: *Germ. Higher Schs.*, 17-26; Seebohm: *Era of Prot. Rev.*, 5-14; Seeley: *Hist. Educ.*, 148-163; *U. S. Com'r Educ. Rept.*, 1902, v. 1, 481-508, 1905, v. 1, 86-884; Williams: *Hist. Mod. Educ.*, 13-14, 20-48, 56-65.)

Introduction: the General Intellectual Renaissance

1. Conditions preceding and contemporary with the Renaissance which contributed to intellectual progress.
 - a. Crusades: interchange and introduction of ideas.
 - b. Change in ideals of government.
 - (1) Feudal system replaced by growth of feeling of the responsibility of government for governed.
 - (2) More stability of society and government, providing more security of person and property.

- c.* Discoveries and explorations.
 - (1) Marco Polo's explorations in the orient.
 - (2) Columbus's discovery of America.
 - (3) Magellan's circumnavigation of the globe.
- d.* Inventions.
 - (1) Gunpowder: increasing the value of generalship in war over brute force.
 - (2) Printing.
 - (a) Multiplied books.
 - (b) Changed methods of teaching by supplanting dictation.
 - (c) Developed schools and universities.
 - (3) Telescope: gave knowledge of other worlds.
 - (4) Mariner's compass: doubled the area of the known world.
- e.* Development of modern languages and literatures, thus unifying and distinguishing the modern nations.
- f.* Revolt against authority.
 - (1) Reason became the guide to truth.
 - (2) Scientific spirit of observation and inductive experiment instead of deduction from unreasoned accepted truths.
 - (3) Demand for personal religious freedom.
 - (4) Changed educational ideal to extreme individualism.
- 2. The new aim in the education of the fourteenth century.
 - a.* To develop individuality.
 - b.* To attain to self-culture.
 - c.* To provide for the interests of mankind as contrasted with those of the State or of society.
 - d.* To permit freedom of thought, of development, of belief, and of method.

The Revival of Letters or the Educational Renaissance

1. Its general significance.

a. Causes.

- (1) Desire to provide for the new ideal in education.
- (2) Recognition of the failure of medieval culture to meet the needs.
- (3) Introduction of Greek texts and coming of Greek teachers from Constantinople after its capture by the Turks in 1453.
- (4) Corresponding new appreciation of Latin literature.

b. Purpose.

- (1) Revival of the Greek conception of "freedom" as the ideal of liberal education.
- (2) Endeavor to learn how the ancients provided for the development of the individual.

c. Immediate effects.

- (1) Wide study of Greek and Latin languages and literatures.
- (2) Search for classical manuscripts and collection and multiplication of the same.
- (3) Increased attention to study and appreciation of the fine arts and of natural science.
- (4) New conceptions of man's thoughts, feelings, aspirations, and possibilities as portrayed by classical literature.

2. The educational Renaissance in Italy.

- ##### **a. Aim:** The free development and liberal culture of the individual in the spirit of the ancients and as disclosed by their writings.

b. Character.

- (1) Study of Greek and Latin classics.

- (2) Self-development as opposed to the asceticism and self-abnegation of the Middle Ages.
- (3) Included physical, moral, and æsthetic development as well as literary, social, and religious.
- (4) Emphasized expression, not only in language but also in conduct, art, and efficient participation in life.
- (5) Limited in its enjoyment, owing to its cost.
- c. Leaders (see below).
 - (1) Dante, Petrarch, Boccaccio, Barzizza, Chrysoloras, da Feltre.
- 3. The educational Renaissance in Northern Europe.
 - a. Aim: to remove common ignorance, not by individual development but by social and religious education.
 - b. Character.
 - (1) Elementary and religious instruction for the young.
 - (2) Study of Greek and Hebrew to understand the Scriptures in the original.
 - (3) Use of the mother tongue in instruction, the Scriptures being translated for that purpose.
 - (4) Gradual merging later with the Reformation movement.
 - c. Leaders.
 - (1) Brethren of the Common Life (Hieronymians).
 - (a) A religious order founded by Gerhard Groot at Deventer, Holland — Thomas à Kempis, representative of the ascetic piety of the order, Erasmus, of the broad and liberal spirit.
 - (b) Their work: spread Christianity, laid foundation of Christian popular education, supplied teachers.

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- (2) Wessel, Agricola, Reuchlin, Hegius, Erasmus, Ascham, Colet, Sturm, Wimpfeling.

The Narrow Humanistic Education

1. Meaning.

- a. Learning, which consisted of a knowledge of the Greek and Latin literatures, was called *humanitas*, i.e. "the pursuits and the activities proper to man."
- b. Hence, the term *humanities* came to indicate the languages and literatures of the ancients, and *humanistic* education was narrowed to linguistic training.

2. Character.

- a. Latin and Greek were chiefly studied, even before the mother tongue.
- b. The physical, social, æsthetic and scientific elements were eliminated, and history and mathematics were neglected.

3. Method.

- a. Formal — grammatical — memory study — exacting exercise of the power of discrimination.
- b. Harsh discipline.

4. The Ciceronians, a type of extreme humanism.

- a. Those who made perfect Latin style, according to Cicero, the chief aim of education.

Representative Renaissance Educators

In Italy

1. Dante (1265-1321).

(Monroe: *Text-Bk. in Hist. Educ.*, 327, 341-347, 357, *Brief Course*, 163; Painter: *Hist. Educ.*, 1st ed., 120, 2d ed., 140; Seeley: *Hist. Educ.*, 151, 155-156.)

- a. The forerunner.
 - b. Author of the *Divine Comedy* and the *Inferno*.
2. **Petrarch** (1304-1374).
 (Hallam: *Europe in the Middle Ages*, v. 2, 630-634; Jebb: *Humanism in Educ.*, 1-16; Monroe: *Text-Bk. in Hist. Educ.*, 327, 354, 358-360, 375, 386, *Brief Course*, 163-164; Painter: *Hist. Educ.*, 1st ed., 120, 2d ed., 40; Seeley: *Hist. Educ.*, 151-153, 155-156; Symonds: *The Renaissance in Italy*, 70-87; *U. S. Com'r Educ. Rept.*, 1897-1898, v. 1, 27.)
- a. "The first modern man."
 - b. Devoted to the study of the classics and to the reproduction of the classical spirit in literature — imitated Cicero.
 - c. Wrote *Sonnets*, *Letters*, *Lives of Ancient Men*.
3. **Boccaccio** (1313-1375) and **Barzizza** (1370-1431).
 (Kemp: *Hist. Educ.*, 153; Monroe: *Text-Bk. in Hist. Educ.*, 360, 375-376, 386-387, *Brief Course*, 165; Painter: *Hist. Educ.*, 1st ed., 120, 2d ed., 140; Seeley: *Hist. Educ.*, 151, 155, 157; *U. S. Com'r Educ. Rept.*, 1897-1898, v. 1, 27.)
- a. Noted for the recovery of texts, the reproduction of manuscripts, and the founding of libraries.
 - b. The former wrote the *Decameron*.
4. **Chrysoloras of Constantinople**.
 (Kemp: *Hist. Educ.*, 153; Monroe: *Text-Bk. in Hist. Educ.*, 360-376, *Brief Course*, 165; Painter: *Hist. Educ.*, 1st ed., 121, 2d ed., 140; Symonds: *The Renaissance in Italy*, 108-113.)
- a. Teacher of classical Greek in the university of Florence (1396).

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5. **Vittorino da Feltre (1378-1446).**

(Compayré: *Hist. Ped.*, 78; Jebb: *Humanism in Educ.*, 16-21; Monroe: *Text-Bk. in Hist. Educ.*, 376-377, *Brief Course*, 174; Symonds: *The Renaissance in Italy*, 289-298; Thurber: *V. da F.*, in *Sch. Rev.*, v. 7, 295-300 (1899); Woodward: *V. da F. & Other Hum. Educators*, 1-92.)

- a. Teacher at Padua and Venice.
- b. Established school at Mantua (1428), where he carried out the Greek idea of a liberal education.
- c. Emphasized the literature, history, and civilization rather than the form of the classical languages.

In Holland and Germany

1. **John Wessel (1420-1489).**

(Barnard: *Germ. Trs. & Educators*, 72-74, *Journ. of Educ.*, v. 4, 714-728; Compayré: *Hist. Ped.*, 87; Kemp: *Hist. Educ.*, 156; Monroe: *Text-Bk. in Hist. Educ.*, 377, *Brief Course*, 175.)

- a. Educated at Deventer, Cologne, Paris, and Rome.
- b. Famous teacher — knew Greek, Latin, and Hebrew.
- c. Agricola and Reuchlin, his noted pupils.

2. **Rudolph Agricola (1443-1485).**

(Barnard: *Germ. Trs. & Educators*, 75-89, *Journ. of Educ.*, v. 4, 717-723; Compayré: *Hist. Ped.*, 87; Kemp: *Hist. Educ.*, 156-157; Monroe: *Text-Bk. in Hist. Educ.*, 377, *Brief Course*, 175; Painter: *Hist. Educ.*, 1st ed., 125-128, 2d ed., 142-146; Russell: *Germ. Higher Schs.*, 20; Seeley: *Hist. Educ.*, 153, 158.)

- a. Studied under Wessel and Thomas à Kempis at Louvain, Paris, and in Italy.
- b. Taught Latin and Greek at Heidelberg and Worms.

- c. Knew also Hebrew, French, and Italian.
- d. Had wide reputation as pioneer in promoting classical learning in Germany.

3. **John Reuchlin (1455-1522).**

(Barnard : *Germ. Trs. & Educators*, 101-112, *Journ. of E* v. 5, 65-78; Kemp : *Hist. Educ.*, 157-158; Monroe : *Text-Bk. in Hist. Educ.*, 377, *Brief Course*, Painter : *Hist. Educ.*, 1st ed., 128-131, 2d ed., 146- Russell : *Germ. Higher Schs.*, 20-23; Seeley : *Educ.*, 159-160; *U. S. Com'r Educ. Rept.*, 1897-1 v. 1, 28.)

- a. Studied at Paris, Basle, and in Italy — pupil of Wes
- b. Taught Latin, Greek, Hebrew, and philosophy at L
- stadt and Tübingen.
- c. Wrote Hebrew grammar (1506).
- d. Introduced classical works into Germany.

4. **Alexander Hegius (1420-1498).**

(Barnard : *Germ. Trs. & Educators*, 81-84, *Journ. of E* v. 4, 723-726; Monroe : *Text-Bk. in Hist. Educ.*, *Brief Course*, 175; Payne : *Lects. on Hist. Educ.*, 37; Russell, *Germ. Higher Schs.*, 20, 23.)

- a. Educated at Deventer — great student of the clas
- particularly Greek, and of the Bible.
- b. For 30 years was master of the gymnasium at Deve
- c. Had many noted pupils.

5. **Jacob Wimfeling (1450-1528).**

(Monroe : *Text-Bk. in Hist. Educ.*, 363, 377-378, 390, *Brief Course*, 176; Russell : *Germ. Higher Schs.*, 23.)

- a. Educated at Deventer.
- b. Lecturer and rector at Heidelberg, the center of hu
- istic learning for Western Germany.

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c. Wrote texts and educational treatises, among them:
Guide to the German Youth.

Desiderius Erasmus (1467-1536).

(Barnard: *Germ. Trs. & Educators*, 87-100, *Journ. of Educ.*, v. 4, 729-740; Compayré: *Hist. Ped.*, 85-94; Davidson, *Hist. Educ.*, 177-179; Kemp: *Hist. Educ.*, 158-161; Monroe: *Text-Bk. in Hist. Educ.*, 362-375, 378-382, 409, 445, *Brief Course*, 166, 172, 176-179, 182, 217; Painter: *Hist. Educ.*, 1st ed., 131-135, 2d ed., 148-153; Payne: *Lects. on Hist. Educ.*, v. 2, 36, 39, 41, 70, 278, 285; Russell: *Germ. Higher Schs.*, 20-24; Seeley: *Hist. Educ.*, 161-163, *U. S. Com'r Educ. Repts.*, 1901, v. 1, 861-884, 1902, v. 1, 481-508; Williams: *Hist. Mod. Educ.*, 56-65.)

a. Studied under Hegius at Deventer, also at Paris, Oxford, and in Italy and Germany.

b. Famous scholar and humanistic writer — knew Greek, Latin, theology, and literature.

c. Edited Greek and Latin classics and works of the church fathers.

d. Wrote textbooks and elementary treatises on education:
Order of Study, Liberal Education of Children, Juvenile Etiquette, Colloquies, Praise of Folly, Adages, The Ciceronians.

e. Advocated the study of history, geography, natural history, and agriculture, in subordinate relation to the classics.

f. Urged adaptation and sympathy in the education of children.

h. Believed in the education of women.

John Sturm (1507-1589).

(Barnard: *Germ. Trs. & Educators*, 195-223, *Journ. of Educ.*, v. 4, 167-182, 401-415; Compayré: *Hist. Ped.*,

85; Kemp: *Hist. Educ.*, 175-179; Monroe: *Text-Bk. in Hist. Educ.*, 391-393, 397, 409, 415, 483, *Brief Course*, 183-185; Painter: *Hist. Educ.*, 1st ed., 159-164, 2d ed., 179-184; Payne: *Lects. on Hist. Educ.*, v. 2, 43, 70, 281-282; Quick: *Educ. Refs.*, 27-32; Russell: *Germ. Higher Schs.*, 42-44, 141, 389; Seeley: *Hist. Educ.*, 175-178; U. S. Com'r *Educ. Rept.*, 1897-1898, v. 1, 31-32; Williams: *Hist. Mod. Educ.*, 96-101.)

- a. Pupil of Wimpfeling — educated in a Hieronymian school — studied also and lectured at Louvain and Paris.
- b. Originator of the German classical secondary school system in that he organized the first German gymnasium at Strasburg and was its director from 1538 to 1583.
- c. Character of this school.
 - (1) 10 years' course, beginning at age of 6 or 7 years.
 - (2) Religion, Latin, and Greek the chief studies, with some arithmetic, geometry, astronomy, rhetoric, and logic in the higher grades.
 - (3) Language the basis of work: pure humanism.
 - (4) Seven years devoted to the mastery of pure idiomatic Latin, three years to the acquisition of style.
 - (5) Greek begun in the fifth year.
 - (6) First detailed and organized course of study.
 - (7) To be followed by 5-year college course.
 - (8) Method of study: double translation, memorizing, composition, correlation, review, dramatizing.
 - (9) Influence: set the standard for secondary curricula in Germany, France, and England, making classical learning almost exclusively the content of secondary education, even up to recent times.

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In England

John Colet (1466-1519).

(Barnard: *Journ. of Educ.*, v. 16, 657-688; Kemp: *Hist. Educ.*, 154-155, 171-172; Monroe: *Text-Bk. in Hist. Educ.*, 382, 388, 393-395, 419, *Brief Course*, 182, 186; Payne: *Lects. on Hist. Educ.*, v. 2, 41, 52, 283-285; Seebohm: *Era of Prot. Ref.*, 76-88, *The Oxford Refs. of 1498*, 76-96; U. S. Com'r *Educ. Repts.*, 1901, v. 1, 861-884, 1902, v. 1, 481-508.)

Educated at Oxford and in Italy, where he came under the influence of Savonarola.

Lectured at Oxford on St. Paul's Epistles and revolutionized the work of the university by his teaching.

Founded St. Paul's School in 1510 and organized the humanistic learning for the secondary schools.

Wrote schoolbooks.

Roger Ascham (1515-1568).

(Ascham: *The Scholemaster* (Appleton or Heath); Barnard: *Journ. of Educ.*, v. 3, 23-46, v. 4, 155-166, v. 11, 57-76, v. 26, 325-336; Browning: *Educ. Theories*, 99-103; Kemp: *Hist. Educ.*, 182-183; Monroe: *Text-Bk. in Hist. Educ.*, 382-385, 388, 392, *Brief Course*, 179-180, 221-223; Painter: *Ped. Essays*, 228-239; Payne: *Lects. on Hist. Educ.*, v. 2, 57-63, 169, 287, *Lects. on Sci. & Art. of Educ.*, 149-154; Quick: *Educ. Refs.*, 80-89; Seeley: *Hist. Educ.*, 190-192; Williams: *Hist. Mod. Educ.*, 106-107.)

Studied at Cambridge and taught Greek there — tutor of Queen Elizabeth — humanistic educator.

Wrote *The Scholemaster*, first treatise on educational

theory in English, noted for its charm of style and for the method of teaching Latin set forth, viz.: double translation, imitation of style, paraphrase, résumé, study of synonyms and variations, grammar through analysis and parsing.

THE REFORMATION AND EDUCATION (15TH-17TH CENTURIES)

(Compayré: *Hist. Ped.*, 112-137; Kemp: *Hist. Educ.*, 162-170; Monroe: *Text-Bk.*, 401-437, *Brief Course*, 189-201; Painter: *Hist. Educ.*, 1st ed., 135-166, 2d ed., 153-187; Quick: *Educ. Refs.*, 27-32; Russell: *Germ. Higher Schs.*, 22-47; Seeley: *Hist. Educ.*, 164-181; U. S. Com'r *Educ. Rept.*, 1897-1898, v. 1, 26-45; Williams: *Hist. Mod. Educ.*, 42-55, 91-106.)

1. Origin.
 - a. Revival of learning.
 - b. Humanism in the universities.
 - c. New study of the Bible in Teutonic Renaissance.
2. Relation to education.
 - a. By translations of Bible, offered incentive to learn, at least to read.
 - (1) Gave birth to universal elementary instruction.
 - b. Emphasized function of individual reason.
 - (1) Hence demanded intellectual training.
 - c. Reformers were humanists.
 - (1) Combined religious material and classical languages in curriculum of higher instruction.
3. Educational effects.
 - a. Common schools for both sexes.
 - b. State support of elementary schools.
 - (1) Demanded educated laity.

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- (2) Growth of idea that welfare of State depends on the education of the individual citizen.
- (3) Led to idea of compulsory education.
- ∴ Systems of schools established.
 - (1) German public school system.
 - (a) Begun by city of Magdeburg, in 1524, on plan of Luther.
 - (b) Established by Electorate of Saxony in 1528 after recommendations of Melancthon.
 - (c) Made a general system of elementary vernacular schools in every village in 1565.
 - (d) Eventually the Latin schools, being expanded to six classes instead of three as Melancthon advocated, became the *gymnasien*.
 - (2) In England, Scotland, Holland, and America.
 - (a) Not a State system of schools in England, but many schools founded through private or church aid, e.g. "the Great Public Schools" (Shrewsbury 1551, Westminster 1560, Rugby 1567, Harrow 1571, Charterhouse 1609, also St. Paul's 1512, Merchant Taylors' 1561, Christ's Hospital 1619).
 - (b) Cooperation of State and Church in Scotland—landholders taxed to support schools in every parish, often both elementary and secondary.
 - (c) System of elementary schools established by the reformed churches of Holland, which later, in connection with the State, extended the system to every parish: origin of earliest schools in American colonies.
 - (d) In 1647, through efforts of the Church and the Commonwealth of Massachusetts, elementary

- (a) Jesuit schools (cf. p. 83).
 (b) Port Royalist schools (cf. p. 86).
 (c) Oratorian schools (cf. p. 89).
 (d) Christian Brothers' schools (cf. p. 90).

Representative Reformation Education

Martin Luther (1483-1546)

Barnard: *Germ. Trs. & Educators*, 131-159;
 4, 421-449; Compayré: *Hist. Ped.*, 1
Hist. Educ., 165-170; Monroe: *Text-Bk.*
nurse, 194-197; Painter: *Hist. Educ.*, 1st e
ssays, 169-186; Russell: *Germ. Higher Sc*
ms: Hist. Mod. Educ., 42-55.)

Early life and education.

- a. Born at Eisleben, Germany — son of p
 sympathy with common people.
- b. At school at Magdeburg and at Eisenach.

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I. Before Diet of Worms (1521).

(1) Decided against him.

(2) German princes and Melancthon sided with him.

II. Further developments after his death.

(1) Freedom of religion granted by emperor (1552).

(2) Diet of Augsburg granted toleration (1555).

(3) Teutonic peoples rapidly embraced the new ideas.

His translation of Bible into German.

1. New Testament (1524)—Bible (1534).

2. Standardized the German language.

3. Gave immense impetus to education.

His letter to German cities (1524).

1. Protested against condition of schools throughout Germany.

2. Duty of Christians to educate children.

3. Duty of officials to establish schools.

4. Duty of State to support and to control them.

5. Elementary instruction should be provided for both sexes.

6. Provision should be made for needs of the common people.

7. Public libraries also were urged.

Sermon on duty of sending children to school (1530).

1. Duty of minister, parents, and all citizens.

2. Need of educated men and women.

3. Temporal and spiritual benefits from the schools: in civil service, government, and professions.

His educational ideas.

1. Compulsory, universal, elementary instruction, for both sexes.

2. State support and supervision.

3. Home to supplement the work of the school.

4. Education necessary because of

- (1) Its moral value.
- (2) Its relation to prosperity.
- (3) The needs of religion.
- e. Natural methods, trained teachers, sympathetic but firm discipline.
- f. State system of schools.
 - (1) Elementary school : for the common people.
 - (a) Instruction in the vernacular.
 - (b) To meet the immediate needs of the people.
 - (2) Secondary or Latin school.
 - (a) Instruction in Latin, Greek, Hebrew, history, mathematics, grammar, rhetoric, logic, nature, music, and physical exercise.
 - (b) To supply intelligent, well-disciplined citizens.
 - (3) Higher school or university.
 - (a) Advanced studies in the several departments.
 - (b) To train teachers and preachers.

Philip Melancthon (1497-1560): called "the Preceptor of Germany"

(Barnard : *Germ. Trs. & Educators*, 161-184, 251-259, *Journ. of Educ.*, v. 4, 741-764, v. 5, 77-78, v. 6, 426-434, v. 11, 159-164, 400-459, v. 20, 528-554; Kemp : *Hist. Educ.*, 172-175; Monroe : *Text-Bk.*, 414-416, *Brief Course*, 197-198; Painter : *Hist. Educ.*, 1st ed., 148-152; Russell : *Germ. Higher Schs.*, 34-35; Williams : *Hist. Mod. Educ.*, 91-96.)

- 1. Early life and education.
 - a. Born in Bretten, Germany.
 - b. First at obscure school, strict training in grammar — pupil of Reuchlin, his great-uncle — then at universities of Heidelberg and of Tübingen.

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1. Teacher.

- a. Taught Greek at university of Tübingen.
- b. Called to chair of Greek at university of Wittenburg (1518).
- c. Lectured much also on literature, philosophy, theology, and pedagogy.
- d. Great numbers of pupils.
- e. Many of them became leading educators.

2. Writer.

- a. Textbooks widely used in German schools, on Latin and Greek grammar, logic, rhetoric, ethics, physics, history, theology, as well as annotated editions of ancient classics.
- b. Addresses on educational organization and values.
- c. Correspondence with fifty-six German cities regarding their schools.

3. Relations to Luther.

- a. Friend and ally.
- b. Formulated and carried out many of Luther's educational suggestions.

4. Organizer of "the Saxony School Plan" (1528).

- a. Scheme drawn up when *visitant* or inspector of churches and schools of Saxony.
- b. Three grades of study.
 - (1) First: alphabet, Lord's prayer, creed and prayers; also writing, singing, and simple Latin grammar.
 - (2) Second: Æsop's fables, writings of Erasmus, epistles of St. Paul, grammatical study of St. Matthew's Gospel, memorizing of a few psalms and some Latin sentences, music.
 - (3) Third: grammar, Virgil, Ovid, and Cicero, versification, rhetoric, logic, Latin conversation, music.

- c. No Greek nor mathematics.
- d. Neglect of the vernacular, Latin being the only language.
- e. Urged fewer studies and fewer books.
- f. This plan served as basis of organization for many schools throughout Germany.
- g. Slightly expanded, these schools became the *gymnasien* of the later German system.

Huldreich or Ulrich Zwingli (1484-1532)

(Compayré: *Hist. Educ.*, 113-114; Kemp: *Hist. Educ.*, 164; Monroe: *Text-Bk.*, 410, *Brief Course*, 195.)

- 1. Great Swiss reformer and teacher.
- 2. Educational work.
 - a. Published Latin work on teaching, viz.: *The Christian Education of Youth*.
 - b. Urged establishment of elementary schools.
 - c. Encouraged Scriptural study, classical learning, Hebrew, study of nature, arithmetic, surveying, music, and physical development.
 - d. Defended civil and religious liberty.

John Calvin (1509-1564)

(Compayré: *Hist. Educ.*, 113-114; Monroe: *Text-Bk.*, 410, *Brief Course*, 195.)

- 1. Religious and theological controversialist.
- 2. Educational work.
 - a. Organized college of Geneva, which was a typical humanistic Latin school.
 - b. Similar schools later established in France and Germany (*Fürstenschulen*).
 - c. Ardent preacher of religious liberty.

Valentine Trotzendorf (1490-1556)

(Barnard: *Germ. Trs. & Educators*, 185-191, *Journ. of Educ.*, v. 5, 107-113; Payne: *Lects. on Hist. Educ.*, v. 2, 43, 279-281; Seeley: *Hist. Educ.*, 178-179; *U. S. Com'r Educ. Rept.*, 1897-1898, v. 1, 31.)

1. Pupil of Melancthon and teacher in school at Goldberg for thirty-five years.
2. Educational work.
 - a. Urged the classical course exclusively, after the example of John Sturm.
 - b. Advocated methods of conversation in Latin, use of concrete objects and illustrations.
 - c. Introduced plan of pupil government.

Michael Neander (1525-1595)

(Barnard: *Germ. Trs. & Educators*, 225-228, *Journ. of Educ.*, v. 5, 599-602; Painter: *Hist. Educ.*, 1st ed., 103-104; Seeley: *Hist. Educ.*, 179-180; *U. S. Com'r Educ. Rept.*, 1897-1898, v. 1, 31.)

1. Pupil of Melancthon and teacher in famous school at Ilfeld-am-Harz for forty-five years.
2. Educational work.
 - a. Adopted a curriculum which included Latin, Greek, natural science, history, geography, chemistry, and medicine.
 - b. Wrote Latin and Greek textbooks.

The Jesuit Schools (the Counter-Reformation of the Society of Jesus)

(Barnard: *Germ. Trs. & Educators*, 232-242, 287-289, *Journ. of Educ.*, v. 5, 210-228, v. 14, 455-482, v. 27, 165-175; Brown-

ing: *Educ. Theories*, 135-144; Compayré: *Hist. Ped.*, 138-149; Davidson: *Hist. Educ.*, 181-189; Hughes: *Loyola & the Educ. Syst. of the Jesuits*; Kemp: *Hist. Educ.*, 184-192; Monroe: *Text-Bk.*, 420-429, *Brief Course*, 201-206; Munroe: *Educ. Ideal*, 124-135; Painter: *Hist. Educ.*, 1st ed., 166-173, 2d ed., 187-194, *Ped. Essays*, 187-202; Payne: *Lects. on Hist. Educ.*, 45-51; Quick: *Educ. Refs.*, 33-66; Russell: *Germ. Higher Schs.*, 46-52; Seeley: *Hist. Educ.*, 182-189.)

1. Foundation of the Order (1540).
 - a. By Ignatius Loyola (1491-1556).
 - b. As a teaching congregation.
2. Purpose.
 - a. To strengthen the authority of the papacy.
 - b. To extend the dominion of the Roman Catholic Church.
 - c. To combat the Protestant heresies.
3. Educational system: *Ratio Studiorum*.
 - a. Function.
 - (1) To train prospective members.
 - (2) To educate youth in general.
 - b. Scope.
 - (1) Both religious and secular.
 - (2) Secondary and higher instruction.
 - (a) Little attention given to elementary education and the instruction of the masses.
 - (b) Inferior colleges: like the *gymnasien*.
 - (c) Superior colleges: like the universities or theological seminaries.
 - c. Extent of influence.
 - (1) Great growth: by 1650, 372 colleges; by 1700, 612 colleges, 157 normal schools, 24 universities, 200 missions.

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- (2) Attendance large: over 2000 students at some colleges; in 1773, when suppressed, 22,000 members of order and over 200,000 students in all.

d. Organization.

- (1) General at head with absolute authority.
- (2) Whole field divided into provinces with "provincial" in charge.
 - (a) Monthly report of provincial concerning character, conduct, and position of each member.
 - (b) Quarterly report of superior in charge of separate institution.
- (3) Under provincial, rectors of colleges appointed by general.
- (4) Under rector, prefects of studies, appointed by provincial.
- (5) Teachers supervised by rectors and prefects.
- (6) Close supervision and absolute authority of superior officers.

e. Teachers.

- (1) Picked men thoroughly prepared.
 - (a) Graduates of both lower and higher colleges.
 - (b) To be permanent teachers, graduates of university and normal school also.

f. Discipline.

- (1) Rigorous but not often corporal punishment.
- (2) Publication of offenses.
- (3) Rewards, prizes, titles, badges, encouraging rivalry and emulation.

g. Students.

- (1) Groups of two, as rivals, under *decurions*, to whom they recited.
 - (a) Served as corrective and incentive.

- (2) Honors for brilliant pupils.
- (3) Day and boarding pupils.
- h.* Secondary course.
 - (1) Began at 14 years of age and lasted 5-7 years.
 - (2) Five grades.

(a) Lower grammar	{	Grammar, syntax, and selec-
(b) Middle grammar	{	tions from Cicero in Latin
(c) Upper grammar	{	and Æsop in Greek.
(d) Humanity	{	Classical authors and Chris-
(e) Rhetoric, 2-3 yrs.	{	tian Greek.
 - (3) Mathematics, history, geography, and nature to slight degree distributed throughout the course.
 - (4) Mother tongue disregarded.
 - (5) Religious instruction emphasized.
- i.* Higher course.
 - (1) Philosophy: 2-3 years.
 - (a) Logic, ethics, psychology, mathematics, and physical science.
 - (2) Theology: 4-6 years.
 - (a) Theology, church history, canon law, Sacred Scriptures, Hebrew.
- j.* Method.
 - (1) Few studies, short lessons, graded, much theme writing and much oral repetition.
 - (2) Sympathy with pupils, to make them love study, and to make work pleasant.
 - (3) Memory work, frequent reviews: daily, monthly, quarterly, yearly.
 - (4) Emulation emphasized.
 - (5) Predominance of training in literary form.
 - (6) *Ratio Studiorum*.

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- (a) Prelection or modified lecture.
- (b) Repetition or oral recitation.
- (c) Disputation or debate.
- (7) Prelection of Cicero lesson, by teacher.
 - (a) Sketch of meaning of lesson.
 - (b) Literal translation following order of words.
 - (c) Grammatical analysis.
 - (d) Explanation of meaning of separate words.
 - (e) Dictation of elegant forms to be memorized or used in written work.
 - (f) Repetition of translation several times.
 - (g) Frequently explanation of the history and geography of the lesson, called *erudition*.
- (8) Repetition.
 - (a) Parts or all of lesson required to be reproduced by pupils.
 - (b) Rules and memory passages recited.
 - (c) One day of each week devoted to review.
- (9) Disputation.
 - (a) Debates or "concertations" of points in grammar, rhetoric, poetry, or on opinions of writers.
 - (b) Judges decided results and awarded prizes.
 - (c) In higher schools, more formal and more important exercises, before whole faculty and often other classes of students.

1. **Merits of Jesuit education.**

- a. Well-trained teaching body, thorough in discipline and organization.
- b. Teaching gratuitous and a matter of religious devotion.
- c. Uniformity in method, leading to
 - (1) Thorough mastery of Latin.
 - (2) Skill in dispute.

- d.* Highly systemized course.
 - (1) Definite work for grades.
 - (2) Studies adapted to pupils.
- e.* Maintained dignity of literature.
- f.* Studied nature and character of pupils.
- g.* Promoted sympathy and pleasure in school.
- 5. Defects of the system.
 - a.* Interests of order dominated its purpose.
 - (1) Political activity for the interests of the church.
 - b.* Education narrow and showy.
 - (1) Well-rounded development disregarded.
 - (2) Independent thought not encouraged.
 - (a) Too much memory work.
 - (3) Receptive and reproductive faculties only developed.
 - c.* High ideals wanting.
 - (1) Religious pride and intolerance promoted.
 - (2) Baser feelings not nobler nature fostered by emulation.
 - d.* Authority prevailed.
 - (1) Subjection of the individual.
 - (2) Too little initiative.
- 6. Decline of the order, due to
 - a.* Political activity.
 - b.* Subordination of the individual to authority.
 - (1) Complete negation of the spirit of the Renaissance.
 - c.* Neglect of primary instruction.
 - d.* Wrong basis in ethics.
- 7. Effect upon education.
 - a.* Greatly increased the importance and influence of schools.
 - b.* Promoted thorough training of teachers.
 - c.* Proved the value of system and organization.
 - d.* Made sympathetic discipline effective.

The Schools of the Oratorians (Oratory of Jesus)

(Compayré: *Hist. Educ.*, 150-152; Kemp: *Hist. Educ.*, 229-234; Monroe: *Text-Bk.*, 429-430.)

1. Foundation of the order.
 - a. In France, in 1614 (originally in Italy in 1558).
 - b. Rival of the order of Jesuits.
 - c. Teaching order.
2. Purpose.
 - a. Similar to that of Jesuits.
 - b. Chiefly secondary education and preparation for priesthood.
3. Character of their instruction.
 - a. For all classes.
 - b. More elastic methods — milder discipline.
 - c. More liberal views, with greater attention to cultivation of individualism.
 - d. First three years' instruction in mother tongue.
 - e. In study of history, French language continued throughout course.
 - f. Studies included theology, mathematics, science, history, geography, philosophy, and Latin—little attention to Greek.

The Port Royal Schools (Order of the Jansenists)

(Barnard: *Journ. of Educ.*, v. 28, 1-16; Browning: *Educ. Theories*, 145-148; Compayré: *Hist. Ped.*, 153-163; Kemp: *Hist. Educ.*, 230-231; Monroe: *Text-Bk.*, 430-433, *Brief Course*, 206-207; Munroe: *Educ. Ideal*, 135-147; Painter: 1st ed., 224-227, 2d ed., 238-244; Quick: *Educ. Refs.*, 172-196; Seeley: *Hist. Educ.*, 227-229.)

1. Foundation of the order.
 - a. By St. Cyran (1581-1643).
 - b. Flourished only from 1637 to 1661.
 - c. Established the "Little Schools" at Port Royal, France, in 1643.
2. Purpose.
 - a. To protest against the work and methods of the Jesuits.
 - b. To promote the welfare of the masses by elementary education.
 - c. To teach more evangelical doctrine.
 - d. To place in the hands of the people the Bible and the church service translated into the vernacular.
3. Fundamental educational theories.
 - a. Childhood inclined naturally to evil and to be made good through education.
 - b. Education the most important influence in the life of the child.
 - c. Purpose of education :
 - (1) To develop the intelligence to highest possible point.
 - (2) To shape the moral and religious character.
4. Methods of instruction.
 - a. Small classes, careful supervision.
 - b. Conversation, outdoor walks, personal association with teachers.
 - c. Phonetic method for reading.
 - d. Learning to be made pleasant.
 - e. Discipline to be based on love of the child.
5. Pedagogical principles.
 - a. Opposed emulation (emphasized by Jesuits) and urged piety and love instead.
 - b. Built upon understanding rather than memory.
 - (1) Child to study only what he could understand.

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- c. Content more important than form to hold interest in the beginning.
 - d. Much use of senses in early education.
 - e. Vernacular to precede Latin.
 - f. Introduction to classical literature through translations.
 - g. Latin studied with little grammar and much translation into vernacular.
 - h. Greek studied directly from vernacular and not through medium of Latin.
6. Chief Port Royalist teachers and pupils.
- a. Arnauld (1612-1694): author of *Nouveaux Éléments de Géométrie, Logique* (or *The Art of Thinking*), *Grammaire générale et raisonnée, Règlement des Études*.
 - b. Lancelot (1615-1695): author of *Méthodes de Port-Royal, Jardin des Racines Grecques* (for learning Latin, Greek, Italian, and Spanish), *Nouvelle Méthode pour apprendre facilement la langue Latine*.
 - c. Pascal (1623-1662): author of *Pensées, Lettres Provinciales* — also discovered that air has weight.
 - d. Nicole (1625-1695): moralist and logician — author with Arnauld of *Logique*; also textbooks, translations, and educational treatises, among them: *L'Éducation d'un Prince, Essais de Morale*.
 - e. La Fontaine (1621-1695): famous author of *Contes* (1664), and *Fables* (1668) — member of French Academy (1684).
 - f. Fénelon¹ (1651-1715): educator and author of *Télémaque* and *L'Éducation des Jeunes Filles*.
 - g. Rollin² (1661-1741): teacher and author of *Traité des Études and Histoire Ancienne*.

¹ See Fénelon, p. 118.

² See Rollin, p. 119.

The Christian Brothers' Schools

(Barnard: *Journ. of Educ.*, v. 3, 437-448, v. 20, 211-216, v. 30, 729-735; Compayré: *Hist. of Educ.*, 253-277; Kemp: *Hist. Educ.*, 231-235; Monroe: *Text-Bk.*, 437-439, *Brief Course*, 212-214; Painter: *Hist. Educ.*, 1st ed., 112-113.)

1. Foundation of the order (1684).
 - a. By Jean Baptiste de La Salle (1651-1719).
 - (1) Religious enthusiast and ascetic.
 - (2) Priest at Rheims.
 - (3) Weak and sickly but of great energy — kept nightly vigils — knelt on sharp stones — used board with iron points to waken him when overcome by sleep.
 - (4) Received doctor's degree from university of Paris.
 - b. Began with school for boys at Rheims in 1679.
 - c. Established in 1684 the Institute of the Brethren of the Christian Schools.
 - (1) Vows of stability and obedience imposed upon his disciples.
 - d. Order sanctioned by the pope and the king in 1724.
2. Purpose.
 - a. To organize popular education.
 - b. To establish schools for primary instruction and for the working classes (commercial and industrial).
3. Character of the education, as set forth in the *Conduct of Schools*.
 - a. Course of study: reading, writing, orthography, arithmetic, and the catechism — much attention to writing — native language studied first.
 - b. Methods.
 - (1) Definite and mechanical — strictly according to rule.

- (2) Concert recitation.
- (3) Simultaneous teaching — pupils carefully graded.
- (4) Much questioning in arithmetic and the catechism.
- (5) Discipline severe.
 - (a) Originally with the ferule.
 - (b) Corporal punishment abolished later.
 - (c) Penances the common practice.
 - (d) Mutual espionage.
 - (e) Rewards.
- (6) Silence required.
 - (a) Signs instead of speech.
 - (b) Low tone if necessary to speak.
- (7) Christian politeness.
- c. Special features.**
 - (1) Instruction gratuitous.
 - (a) La Salle believed that it should be obligatory.
 - (2) Uniformity in methods and regulations.
 - (3) Written rules.
- d. Training of teachers in normal schools.**
 - (1) Seminary of schoolmasters at Rheims in 1685, later, one at Paris.
 - (2) All members of order to be professionally trained for the work.
 - (3) Primary school for practice maintained in connection with the normal school.
- e. Growth of schools.**
 - (1) Schools for the order, for the training of teachers, for practice, for technical instruction, and for elementary instruction in great numbers.
 - (2) Many members of order.
 - (3) Thousands of pupils.
 - (4) Found in Europe, Asia, Africa, and America.

MODERN EDUCATION

REALISTIC EDUCATION

(Browning: *Educ. Theories*, 61-134; Davidson: *Hist. Ed* 190-208; Kemp: *Hist. Educ.*, 193-224; Monroe: *Text* 402-504, *Brief Course*, 215-253; Munroe: *Educ. Id* 8-94; Quick: *Educ. Refs.*, 63-171.)

The First or Transition Period of Realism (Humanistic Verbal Realism)

1. The educational trend toward realism.

a. Defects of humanistic education.

- (1) Words were taught instead of things.
- (2) End of education was mostly to form writers and speakers.
- (3) Language was taught, not as a means of preparation for the service of life, but as dry material collected and arranged by grammarians, the words being more important than the student.

b. Causes leading to new views and new aims.

(1) New literatures in modern languages.

(a) English: Bacon, Milton, and Shakespeare.

(b) French: Molière, Corneille, Racine, La Fontaine, Pascal, Fénelon, Boileau, and Sévigné.

- (c) German: Sachs, Von Hutten, Heine, Gellert, Murner, and Böhme.
- (2) Geographical discoveries.
 - Marco Polo (1236-1324) and Sir John Mandeville (1300-1372) in the orient.
 - 1402, Canary Islands
 - 1419, Madeira Islands
 - 1460, Cape Verde Islands
 } By the Portuguese.
 - 1487, Cape of Good Hope circumnavigated: making new route by sea to India.
 - 1492, Columbus discovered America.
 - 1497, John Cabot explored coast of North America.
 - 1507, Waldenseemüller wrote: *Introduction to Geography* — widely read.
 - 1519-1521, Magellan circumnavigated the globe.
- (3) Commercial and industrial activity.
 - (a) Trading with the orient.
 - (b) Shipbuilding.
 - (c) National trade and manufacturing in England replaced that of towns and guilds.
 - (d) Roads and canals in France and Germany — new trades — agriculture encouraged.
- (4) Scientific activity.¹
 - (a) Bacon (1561-1626): the inductive method.
 - (b) Gallileo (1609): the telescope and the pendulum.
 - (c) Kepler (1609): the laws of planetary movements.
 - (d) Napier (1614): logarithms.
 - (e) Harvey (1616): the circulation of the blood.

¹ See page 66 for inventions of gunpowder, printing, and mariner's compass.

- (f) Louis XIII (1635): the French Academy of Sciences.
 - (g) Torricelli (1643): the barometer.
 - (h) Guericke (1650): the air pump.
 - (i) Pascal (c. 1650): that air has weight.
 - (j) Charles II (1660): the Royal Society of England.
 - (k) Roemer (c. 1670): the velocity of light.
 - (l) Newton (1684): the laws of gravitation.
2. Essence of the realistic movement.
- a. Appealed to experience and to facts, as opposed to authority and to formal memory training.
 - (1) From dead things to living nature.
 - (2) From mechanical to organic instruction.
 - (3) Emphasis upon phenomena of nature and social institutions.
 - (4) Prominence given to mother tongue.
 - (5) Study of mathematics, history, law, nature by observation, arts, and trades.
 - b. Prepared for real life and intercourse with the world, not for discussions in the schools.
 - c. Enriched the intelligence, instead of burdening the memory.
 - d. Stimulated the free activity of the mind.
 - e. Transferred education from the hands of the church to those of the laity.
3. Verbal realism (the transition from humanism to realism).
- a. Outgrowth of early Renaissance influences.
 - b. Protest against narrow formal humanism.
 - c. Retained classical languages and literatures as objects and means of study.
 - d. Purpose.
 - (1) To gain content, not form.

- (2) To master life as regards both nature and society.
- (3) To utilize form only as the key to the understanding of the realities of thought.
- (4) To provide physical, moral, and social development as well as to promote study.
- (5) To encourage a broad and appreciative study of literature.

Representative Educators of the Transition Period

François Rabelais (1483-1553)

(Barnard: *Journ. of Educ.*, v. 14, 147-158; Browning: *Educ. Theories*, 80-91; Compayré: *Hist. Ped.*, 91-100; Kemp: *Hist. Educ.*, 194; Monroe: *Text-Bk.*, 446-448, *Brief Course*, 217-218; Munroe: *Educ. Ideal*, 8-35; Quick: *Educ. Refs.*, 63-69; Seeley: *Hist. Educ.*, 192-195; Williams: *Hist. Mod. Educ.*, 74-80.)

1. Successively monk, pastor, physician, and scholar.
2. Writings.
 - a. *Gargantua and Pantagruel*.
 - b. Satirized the prevailing formal, insincere, shallow life.
 - c. Condemned the dominant education of words.
3. His plan of study.
 - a. Instead of linguistic and formal literary education, one to include social, moral, religious, and physical elements.
 - b. Included classical languages: Latin, Greek, Hebrew, Chaldean.
 - c. Also physical and natural sciences.
 - (1) By object lessons, observation of nature, and excursions.
 - d. Embraced encyclopedic knowledge.

4. Means of study.

- a. Books, studied for content and for practical service in life.
- b. Nature itself.

5. Methods of education.

a. Physical.

- (1) Gymnastics and games.
- (2) Walks and excursions in open air.
- (3) Habits of cleanliness, exercise, and regularity.

b. Intellectual.

- (1) Intense activity.
- (2) Freedom of thought and action instead of dependence upon authority.
- (3) Personal acquaintance with nature.
- (4) Object lessons.
- (5) Shop work for arts and industries.
- (6) Studies to be pleasant: interest, not compulsion, to be the motive.

c. Moral.

- (1) Precept and example.
- (2) High ideals.
- (3) Associated with religion.
- (4) To be made attractive.

6. Influence.

- a. Inspiration to writers and educators who came after him rather than directly upon school work.

John Milton (1608-1674)

(Barnard: *Journ. of Educ.*, v. 2, 61-85, v. 14, 159-190, v. 22, 181-190, v. 23, 151-160, v. 28, 383-400; Browning: *Educ. Theories*, 104-117; Graves: *Gl. Educators of Three Centuries*, 1-9; Milton: *A Tractate on Educ.* (Cambridge Univ. Press);

Monroe: *Text-Bk.*, 448-451, *Brief Course*, 219-220; Painter: *Hist. Educ.*, 1st ed., 188-194, 2d ed., 207-213, *Ped. Essays*, 240-254; Quick: *Educ. Refs.*, 212-218; Seeley: *Hist. Educ.*, 217-220; Williams: *Hist. Mod. Educ.*, 191-202.)

1. Great scholar as well as great poet.
2. Author of *A Tractate on Education*.
3. Educational theories.
 - a. Objected to
 - (1) Approach to study through formal grammar.
 - (2) Formal study of language without regard to content.
 - (3) Narrowness of aim.
 - b. Believed that
 - (1) Education must be realistic.
 - (a) Substance more important than form.
 - (b) Thought more important than words.
 - (c) Practical efficiency in life more important than showy accomplishments.
 - (2) Language should be taught as a means of expression.
 - (3) Intellectual effort should be made pleasant, having regard for pupil's development.
 - (4) There should be physical training.
 - (5) Nature, society, and the professions should be studied through literature.
4. Criticisms.
 - a. Made books the sole source of information.
 - b. Overvalued both books and information.
 - c. Did little to advance science of education.
 - (1) Too much emphasis on knowledge.
 - (2) Not enough on observation, reasoning, and independent thinking.
 - d. His aim in studying the classics not approved.

- (1) Style and development not considered important.
- (2) Placed too much reliance on them as sources of knowledge and methods of trades and professions.
- e. Nevertheless his fame contributed greatly to the spread of the realistic movement.

Michael de Montaigne (1533-1592): called "Social Realist"

(Barnard: *Germ. Trs. & Educators*, 317-334, *Journ. of Educ.*, v. 4, 461-478; Browning: *Educ. Theories*, 91-98; Compayré, *Hist. Ped.*, 100-111; Kemp: *Hist. Educ.*, 195-197; Monroe: *Text-Bk.*, 451-461, *Brief Course*, 221-226; Montaigne: *The Educ. of Children* (ed. Rector, Appleton); Munroe: *Educ. Ideal*, 95-101; Painter: *Hist. Educ.*, 1st ed., 175-178, 2d ed., 196-200, *Ped. Essays*, 203-227; Quick: *Educ. Refs.*, 70-79; Seeley: *Hist. Educ.*, 195-198; Williams: *Hist. Mod. Educ.*, 80-90.)

1. Life.

- a. Well educated by German tutor, at university and in law — classically trained.
- b. Member of French parliament — mayor.
- c. Wealthy, retired — became author.
- d. Works on education.
 - (1) *The Education of Children*.
 - (2) *Pedantry*.
 - (3) *The Affection of Fathers*.
 - (4) *Habit*.
 - (5) *History*.

2. Character of his educational views.

- a. Education should shape judgment and disposition rather than seek knowledge.

- b.* Should prepare one for practical, successful, happy service in life, as a "man of the world."
 - c.* By travel, should furnish experience and familiarity with men and customs.
 - d.* Should aim at social efficiency.
- j.* His relation to humanism.
 - a.* Opposed knowledge of the ancients as the ideal of education.
 - b.* Books and knowledge not of importance but "wisdom," the product of well-trained judgment.
- k.* His relation to verbal realism.
 - a.* Emphasized the gaining of ideas and the ability to think clearly rather than content in place of words.
- l.* His relation to later scientific realism.
 - a.* Regarded realities of thought as more important than those of the senses.
 - b.* Shared the opposition of the early scientists to the formal artificial education of the times.
- m.* His relation to naturalistic education.
 - a.* Did not approve of getting close to nature by withdrawing from the world, as did Rousseau.
 - b.* Urged association with men and life.
 - (1) For experience with others.
 - (2) As discipline of judgment.
- n.* Other features of his conception of education.
 - a.* Emphasized not the mind, not the body, but the man.
 - b.* Aimed not at what to think but how to live.
 - c.* Knowledge should be assimilated.
 - d.* Ideas should be realized in conduct, practiced rather than memorized.
 - e.* Education should be general not special.
 - f.* Language should be gained by use.

- (1) Mother tongue of first importance.
- (2) Exercise of the judgment essential.
- g. Methods.
 - (1) Conversation.
 - (2) Stimulating of curiosity.
 - (3) Observation.
 - (4) Object lessons.
 - (5) Social intercourse.
 - (6) Reflection and assimilation.
- h. Discipline pleasant.
- i. Physical training important.
 - (1) For health, strength, endurance, and skill.
- j. Education of women not favored to great extent.
- 8. Importance of Montaigne's conception of education.
 - a. Beginning of idea that education is a process of growth.
 - b. Expression of new purpose, that of forming or training the mind.

Richard Mulcaster (1531-1611): English Realist

(Barnard: *Journ. of Educ.*, v. 24, 179-184, v. 28, 743-748; Kemp: *Hist. Educ.*, 200; Monroe: *Text-Bk.*, 465-467, *Brief Course*, 230; Mulcaster: *Positions* (ed. Quick); Quick: *Educ. Refs.*, 90-102; Williams: *Hist. Mod. Educ.*, 107-113.)

- 1. Life.
 - a. Educated at Eton, Cambridge, and Oxford.
 - b. Schoolmaster in London (1555).
 - c. Headmaster of Merchant Taylors' School (1561-1586).
 - d. Headmaster of St. Paul's School (1586-1608).
 - e. Writer on education.
 - (1) *Positions* (1581).
 - (2) *The Elementarie, Part 1* (1582).

2. Educational principles.

- a. Aim: to aid nature in perfecting the mental and physical development of the pupil.
- b. Adaptation to pupil.
 - (1) In knowledge presented.
 - (2) In methods employed.
 - (3) According to pupils' natural development.
- c. Emphasis on elementary instruction.
 - (1) For both sexes.
 - (2) In English.
 - (a) Wrote a text as model.
 - (3) Not all pupils fitted for higher education.
 - (4) Urged thorough training of teachers.
 - (a) Early instruction considered most important for foundation.
- d. School education better than tutorial.
- e. Physical training essential.
- f. Classical languages of limited value.
- g. Studies should be made pleasurable.
- h. Urged the importance of training the individual rather than teaching subject matter.

Sir Francis Bacon (1561-1626): Scientific Realist

(Bacon: *Novum Organum, Advancement of Learning* (Bohn Library); Barnard: *Germ. Trs. & Educators*, 261-290, *Journ. of Educ.*, v. 5, 535-540, 655-681; Compayré: *Hist. Ped.*, 123-124; *Encycl. Brit.*, art. Bacon; Graves: *Gt. Educators of Three Centuries*, 10-19; Hailman: *Hist. Ped.*, 52-62; Kemp: *Hist. Educ.*, 198-200; Monroe: *Text-Bk. in Hist. Educ.*, 468-478, *Brief Course*, 230-237; Munroe: *Educ. Ideal*, 36-67; Painter: *Hist. Educ.*, 1st ed., 179-187, 2d ed., 200-207; Seeley: *Hist. Educ.*, 205-209; Williams: *Hist. Mod. Educ.*, ch. 5.)

1. Life.

- a. Educated at Cambridge.
- b. Failed in political life, though he held high office.
- c. Endeavored to formulate all knowledge.
- d. Wrote on education.
 - (1) *Instauratio Magna*, to be an encyclopedia of knowledge.
 - (2) *Advancement of Learning*.
 - (3) *Novum Organum*.
 - (4) *Essays*.

2. Aim.

- a. To systematize human knowledge.
- b. To formulate method for investigation of phenomena.
- c. To collect the results of experience with nature.
- d. To outline a plan of natural philosophy from the material collected.
- e. To deduce true philosophy of nature.

3. Basis of knowledge.

- a. Uniformity of nature.
 - (1) Knowledge unified is simple.
 - (2) Knowledge based on this uniformity deals with laws and principles which can be investigated and determined.
- b. Derived first from study of phenomena of nature.
- c. Derived next from study of phenomena of mind, *i.e.* from language, literature, philosophy, and theology.

4. Method.

- a. Induction instead of deduction.
- b. Process determined by the end sought.
 - (1) The starting point not an accepted authoritative law.
 - (2) But problem to be solved by the investigation of particular facts.

- c.* Observation not authority.
 - d.* Deduction of secondary value for application.
 - e.* Investigation and experimentation for discovery of truth.
 - (1) To gain power over nature.
 - (2) To gain power through knowledge.
 - (3) To correct experience of the senses by experiment.
 - f.* Subject to difficulties of tradition, prejudice, custom, and doctrine.
5. Influence.
- a.* Led to study of method of attaining knowledge by the individual.
 - b.* Promoted the method of teaching as applied to the individual.
 - c.* Inspired others to study processes of thought just as he studied the subject matter of thought.
 - d.* Aided especially Ratich, Comenius, Locke, and Rousseau in their educational work.

INNOVATORS OF THE SIXTEENTH AND SEVENTEENTH CENTURIES

Introduction

1. Their principles (cf. Quick : *Educ. Refs.*, p. 104).
- a.* Study of things should precede or be united with the study of words.
 - b.* Knowledge should be communicated when possible by appeals to the senses.
 - c.* Linguistic study should begin with that of the mother tongue.
 - d.* Latin and Greek should be taught to those only who were to complete a learned education.

- e. Physical education should be promoted for the sake of health.
- f. The method of teaching should be "according to nature."
- 2. Their methods.
 - a. From concrete to abstract or a knowledge of the thing itself before the rules which refer to it.
 - b. From analysis to synthesis.
 - c. Method of discovery rather than acceptance of truth upon authority.
 - d. Interest not coercion most important in the acquisition of knowledge.
 - e. Only that which is understood may be committed to memory.

Wolfgang Ratich (1571-1635) (Ratke or Ratichius): Realist or Innovator

(Barnard: *Germ. Trs. & Educators*, 335-370, *Journ. of Educ.*, v. 5, 229-256, v. 6, 459-466; Browning: *Educ. Theories*, 61-66; Compayré: *Hist. Ped.*, 121-122; Graves: *Gt. Educators of Three Centuries*, 20-26; Kemp: *Hist. Educ.*, 201-206; Monroe: *Text-Bk.*, 478-480, *Brief Course*, 237-238; Painter: *Hist. Educ.*, 1st ed., 194-200, 2d ed., 213-219; Quick: *Educ. Refs.*, 103-118; Seeley: *Hist. Educ.*, 209-211; Williams: *Hist. Mod. Educ.*, 154-162.)

1. Life.

- a. Born at Wilster, in Holstein.
- b. Studied at Hamburg and the university of Rostock.
- c. Traveled to Holland and England.
- d. Elaborated a scheme for teaching at Electoral Diet, in Frankfort, in 1612.

(1) Wrote on education: *Address to Princes* and *Methodus Nova*.

- e.* Unsuccessful experiment at Augsburg.
- f.* Failure at Koethen.
- . His aims.
 - a.* To teach Latin, Greek, and Hebrew more thoroughly and in shorter time.
 - b.* To teach all the arts and sciences through the medium of the vernacular.
 - c.* To introduce and establish throughout Germany uniformity in speech, government, and religion.
- . His rules.
 - a.* Follow nature.
 - b.* One thing at a time.
 - c.* Repetition.
 - d.* Everything through the mother tongue.
 - e.* Everything without constraint.
 - f.* Nothing to be learned by heart.
 - g.* Uniformity in all things.
 - h.* The thing itself first, the explanation afterwards.
 - i.* Everything through experience.
- 1. His method of teaching the mother tongue.
 - a.* The alphabet first.
 - b.* Conversation and pronunciation.
 - c.* Illustration of reading lesson.
 - (1) Reading twice by teacher of the Book of Genesis, the pupils following with eye and finger.
 - (2) Reading of first chapter, pupils repeating each four lines.
 - (3) Reading of whole by pupils.
 - (4) Explanation of grammar, with examples in text, by teacher.

- (2) Thousands of common Latin words referring to familiar objects, with their vernacular equivalents in parallel columns.
- (3) These to be arranged in sentences from simple to more complex.
- (4) Vocabulary and writing knowledge of Latin.
- (5) Encyclopedic survey of knowledge.
- (6) Was translated into many languages.
- c. Texts related to the " Gate."
 - (1) *Vestibulum*, an introductory text.
 - (2) *Artrium*, an expansion of the " Gate."
 - (3) *Thesaurus*, summary of Latin literature.
- d. *Orbis sensualium pictus* (the World of Sensible Things Pictured).
 - (1) Adaptation of the *Janua*, illustrated with pictures.
 - (2) First illustrated textbook for children.
 - (3) New method of dealing with things.
 - (4) Method of induction leading to generalized knowledge.
- 3. Aim of education.
 - a. Religious and moral.
 - (1) End of man is happiness with God.
 - (2) Control of self, attained by knowledge of self and all things.
 - (3) Knowledge, virtue, piety.
- 4. Method of education.
 - a. According to nature.
 - b. By arrangement of facts on universal principles.
 - (1) On basis of known to unknown, leading to attainment of all knowledge.
 - (2) Each fact to lead to the next.
 - (3) Sense perception the source of knowledge.

5. Organization of schools.

a. Infant or mother school : 1-6 years.

(1) Language, the senses, religion, morals.

b. Elementary or vernacular school : 7-12 years.

(1) Mother tongue, drawing, arithmetic, catechism, singing, history, geography, and government.

c. Latin school or *gymnasium* : 13-18 years.

(1) Latin grammar, rhetoric, logic, ethics, arithmetic, geometry, physics, astronomy, geography, music.

d. University : 19-24 years.

(1) Advanced courses in all departments of learning.

5. Educational principles.

a. Development of the whole man.

b. Follow the order of nature.

(1) Gradation : known to unknown, simple to complex, concrete to abstract.

(2) Good foundation : mother tongue first.

(3) Adaptation.

(4) Correlation.

(5) Comprehension before memorizing.

c. Words and things together.

(1) Use of objects and pictures.

d. Language to be learned by use, not by rules.

(1) Learn by doing.

e. Experience not authority.

(1) Sense perception first.

f. Train for character.

(1) The teacher an example.

(2) Religion important.

g. Agreeable methods.

h. Few studies.

i. Both sexes included.

7. Criticisms of Comenius.

a. Contributed greatly to educational theory.

(1) Urged universal, compulsory education for both sexes.

(2) Outlined methods and principles which greatly aided later efforts in education.

(3) Emphasized the necessity of early training in sense perception to precede the development of the higher mental powers.

b. Improved textbooks.

c. Prepared the way for the kindergarten.

d. Showed the need and value of school organization by a definite plan.

e. Overestimated the importance of knowledge.

f. Undervalued the literature and knowledge of the past.

John Locke (1632-1704) — Education as a Discipline

(Barnard: *Germ. Trs. & Educators*, 428-440, *Journ. of Educ.*, v. 6, 210-222, v. 11, 460-484; Browning: *Educ. Theories*, 118-134; Compayré: *Hist. Ped.*, 194-211; Davidson: *Hist. Educ.*, 197-209; Graves: *Gt. Educators of Three Centuries*, 52-66; Hailman: *Hist. Ped.*, 63-73; Kemp: *Hist. Educ.*, 218-221; Locke: *Some Thoughts on Education* (Cambridge Univ. Press), *On the Conduct of Understanding* (Maynard, N. Y.), *An Essay on the Human Understanding* (Tegg, London); Misawa: *Mod. Educators*, 35-58; Monroe: *Text-Bk. in Hist. Educ.*, 512-523, *Brief Course*, 261-266; Munroe: *Educ. Ideal*, 95-123; Painter: *Hist. Educ.*, 1st ed., 213-223, 2d ed., 230-238, *Ped. Essays*, 278-290; Quick: *Educ. Reformers*, 219-238; Russell: *Germ. Higher Schs.*, 73-74, 161-171; Seeley: *Hist. Educ.*, 220-223; Williams: *Hist. Mod. Educ.*, 202-208.)

- (b) Praise openly.
- (c) Censure privately.
- (d) Reason with pupil.

7. Physical education.

- a. Hardening process or discipline.
 - (1) Resistance to elements.
 - (2) Attention to food, clothes, etc.
- b. Habits of exercise.
 - (1) For endurance.
 - (2) For vigorous constitution.
- c. "A sound mind in a sound body," the fundamental maxim.

8. Influence of Locke.

- a. Strengthened the doctrine of "formal discipline" in modern education.
 - (1) Training involved in the study of a subject more important than the information inculcated.
 - (2) Determined much of the practice in choice of method and subject matter in the schools of England, Germany, and America.
- b. Seen especially in work of Rousseau.
 - (1) Idea of education as development and growth.

SOME EARLY EIGHTEENTH-CENTURY MOVEMENTS AND
EDUCATORS

Pietism and Hermann Francke

(Barnard, *Germ. Trs. & Educators*, 441-458, *Journ. of Educ.*, v. 5, 441-459, 689-699; Bolton: *Sec. Sch. Syst. of Germany*, 82; Compayré: *Hist. Ped.*, 414; Graves: *Gt. Educators of Three Centuries*, 67-76; Kemp: *Hist. Educ.*, 235-240; Monroe: *Text-Bk. in Hist. Educ.*, 498, 501, 722, Brief Course,

249; Painter: *Hist. Educ.*, 1st ed., 239-247; Russell: *Germ. Higher Schs.*, 63-65; Williams: *Hist. Mod. Educ.*, 260-275.)

Pietism

1. Term of reproach.
2. Movement of Lutheran church against prevailing state of religion.
 - a. Fervor of Reformation gone.
 - b. Divisions and heresies.
 - c. Religion a matter of theological definition and theory.
 - d. Piety a secondary matter.
 - e. Religion mixed up with political intrigue and persecution.
3. Effort to make religion a matter of heart and daily life.
4. Influence of Philip Spener.

Francke (1663-1727)

1. Life.
 - a. Well educated at Erfurt, Kiel, and Leipsic universities.
 - (1) Studied theology, metaphysics, natural science, history, and ancient languages.
 - (2) Intellectualist.
 - (3) Inspired with new fervor by Spener.
 - b. Lecturer and teacher.
 - (1) Theology at Leipsic.
 - (2) Languages at Halle.
 - c. Philanthropist.
 - (1) Instructed the poor in his home.
 - (2) Founded school.
 - (3) Enlisted college students as instructors.
 - (4) Enlarged work through subscription.

- (a) Many students.
- (b) Buildings and apparatus.
- 1. Educational foundations.
 - a. Orphan House.
 - b. Free table for indigent pupils.
 - c. Burgher school — primary grade.
 - d. Latin school of the Orphan House.
 - (1) Secondary school to prepare for the university.
 - (2) Four hundred pupils.
 - e. Pedagogium.
 - (1) Secondary school for higher classes.
 - (2) Extensive scientific and industrial equipment.
 - f. Drug store.
 - g. Bookstore.
 - h. Institution for women.
- 2. Other activities.
 - a. Pastor of church.
 - b. Director of printing office.
 - (1) Before 1800 issued one million copies of the New Testament and a million and a half copies of the Bible.
 - c. Founder of mission in India.
 - d. Trained teachers.
- 3. Spirit of the man.
 - a. Piety the basis of all work and the essential thing in education.
 - b. Education should relate to vocation.
 - (1) Practical and utilitarian.
 - c. Recognized the differences of pupils.
 - d. Advocated.
 - (1) Physical exercises and games.
 - (2) Mechanical and industrial employments.

5. Rules to teachers.
 - a. Rely upon God.
 - b. Discipline through confidence, gentleness, and love.
 - c. Cultivate self-control and cheerfulness.
 - d. Inflict no penalty for lack of comprehension.
 - e. Be firm but not harsh.
 - f. Reason with older pupils.
 - g. Study dispositions and inspire pupils to do their best.

François Fénelon (1651-1715) — the Education of Girls

(Barnard: *Journ. of Educ.*, v. 13, 477-494, v. 30, 481-490; Compayré: *Hist. Ped.*, 164-186; Kemp: *Hist. Educ.*, 221-224; Munroe: *Educ. Ideal*, 147-152; Painter: *Hist. Educ.*, 1st ed., 227-234, *Ped. Essays*, 291-302; Williams: *Hist. Mod. Educ.*, ch. 8.)

1. Life.
 - a. Well-educated priest at the age of 24.
 - b. Head of girls' school.
 - c. Fluent writer.
 - (1) *The Education of Girls*.
 - (2) *Collection of Fables*.
 - (3) *Dialogues of the Dead*.
 - (4) *Télémaque*.
 - d. Tutor of Duke of Burgundy.
 - e. Archbishop of Cambray.
2. Theories of education for girls.
 - a. Necessary, because
 - (1) Women weaker than men.
 - (2) Their duties the foundation of all human life.
 - (3) A preventive of idle and objectional life.
 - b. Scope.

- (1) Reading, writing, grammar, ancient and modern history, good literature, accounts, government, and fine arts.
- (2) To exclude women from law, ministry, and politics.
- . Methods of education.
 - a. Begin early.
 - (1) Consider plasticity of mind.
 - (2) Form body, mind, and character at impressionable age.
 - b. Take advantage of curiosity.
 - (1) Study the objects themselves.
 - c. Make instruction indirect.
 - (1) A source of pleasure.
 - (2) A means of discipline.
 - d. Give moral instruction through history and fables.
 - (1) Cf. modern story methods of teaching.

Charles Rollin (1661-1741) — School Management

[Barnard: *Journ. of Educ.*, v. 23, 17-46; Compayré: *Hist. Ped.*, 232-252; Kemp: *Hist. Educ.*, 248-249; Painter: *Hist. Educ.*, 1st ed., 234-239, *Ped. Essays*, 303-320; Williams: *Hist. Mod. Educ.*, 281-290.)

- i. Life.
 - a. Highly educated at Collège du Plessis and at Paris.
 - (1) Literary and theological studies.
 - b. Educator, fifty years.
 - (1) 1688, Chair of eloquence: Collège Royal de France.
 - (2) 1694, Rector of University of Paris; again in 1720.
 - (3) 1699, Rector of Collège de Beauvais.
 - c. Writer.

- (1) *Traité des Études.*
- (2) *Histoire Ancienne.*
- 2. Special features of his plan of education.
 - a. Emphasis on
 - (1) Study of things.
 - (2) Use of the vernacular.
 - (3) History.
 - b. Intelligent and humane treatment of pupils.
 - c. Little Latin and Greek.
 - d. Much attention to plants and animals.
 - e. Religious and spiritual education important.
- 3. Pedagogical principles.
 - a. Adaptation to individual differences of pupils.
 - b. Make study pleasant.
 - (1) Combine gentleness with force.
 - (2) Encourage those who do well.
 - (3) Rewards valuable if given in moderation.
 - c. Make discipline intelligent and reasonable.
 - (1) Never punish in anger.
 - (2) Punish for correction.
 - (3) Too frequent reprimand is futile.
 - (4) The rod dangerous if not in moderation.
 - (5) Obstinacy alone deserves severe treatment.
 - (6) Avoid resentment of pupils by harshness.
 - (7) Authority not to displace reason.
 - d. Teacher's example of greatest influence in moral instruction.

EDUCATION ACCORDING TO NATURE

Jean Jacques Rousseau (1712-1778) — Individualism

(Barnard : *Germ. Trs. and Educators*, 459-486, *Journ. of Educ.*, v. 5, 459-486; Browning : *Educ. Theories*, 152-169; Compayré : *Hist. Ped.*, 278-310; Davidson : *Hist. Educ.*, 211-219, *Rousseau & Educ. according to Nature*; *Encycl. Brit.*, art. on Rousseau; Graves : *Gt. Educators of Three Centuries*, 77-111; Hailman : *Hist. Ped.*, 74-84; Hoyt : *Studies in Hist. Educ.*, 48-71; Kemp : *Hist. Educ.*, 255-264; Misawa : *Mod. Educators*, 59-92; Monroe : *Text-Bk. in Hist. Educ.*, 547-575, *Brief Course*, 280-296; Munroe : *Educ. Ideal*, 153-178; Painter : *Hist. Educ.*, 1st ed., 249-255, 2d ed., 265-274, *Ped. Essays*, 321-339; Payne : *Lects. on Hist. Educ.*, 89-91; Quick : *Educ. Refs.*, 239-272; Rousseau : *Émile* (ed. Payne, Appleton, also *Extracts*, ed. Steeg, Heath); Russell : *Germ. Higher Schs.*, 61-75; Seeley : *Hist. Educ.*, 241-249; Williams : *Hist. Mod. Educ.*, 290-309.)

1. Conditions of society in which Rousseau developed his philosophy of life and of education.

a. Social classes.

(1) Privileged classes of monarchy, nobility, and clergy.

(a) Absolutism.

(b) Suppression of individual judgment.

(c) Corruption and injustice.

(2) Crushing burdens of non-privileged classes.

(a) Feudal conditions.

(b) Taxation.

(c) No provision for intellectual and spiritual needs.

b. Government.

- (1) Centralized tyrannical monarchy.
- (2) Oppression.
- (3) Inefficiency and bankruptcy.
- c. New school of men of letters and their influence.
 - (1) Voltaire: *Essays*; Montesquieu: *Esprit des Lois*; Morelly: *Code de la Nature*; Diderot: *Encyclopaedia*; Rousseau: *Contrat Social*.
 - (2) Skepticism, philosophic liberalism, rationalism.
 - (a) Freedom of thought, liberty of conscience, sufficiency of the reason.
 - (b) "Nature."
 - (c) Social contract and inequality.
 - (3) Concentrated attacks on Church.
 - (a) Decline of ecclesiastical authority.
 - (b) Development of individual judgment and intelligence.
 - (4) Improvement of masses.
- 2. Life of Rousseau (1712-1778).
 - a. Son of watchmaker of Geneva.
 - (1) Delicate, studious, emotional, addicted to bad literature — brought up by aunt.
 - (2) Apprenticed to engraver (1724-1728) — led life of deceit.
 - (3) Left home as vagabond (1728-1741).
 - b. In Paris, and secretary to ambassador at Venice.
 - (1) Dissolute life.
 - (2) Dijon Academy prize essay: *Influence of Arts and Sciences* (1749).
 - (3) *Origin of Inequality*, discussion of his social doctrine (1753).
 - c. In Montmorency, writer.
 - (1) *The New Heloise*, first educational essay (1759).

- (2) *The Social Contract*, protest against the social conditions (1762).
- (3) *Émile*, exposition of his theory of education (1762).
- (4) *Confessions*, his autobiography (1766).
- d. In exile, after storm caused by the *Émile*.
 - (1) Wanderer through Switzerland, England, and France.
- e. Died at Ermenonville (1778).
 - (1) His ashes removed to Paris and placed in the Panthéon (1793).
- 3. Purpose and spirit of his writings.
 - a. Protest against the prevailing effects of civilization and culture.
 - b. Emphasis upon freedom of development through direct experience and "according to nature," unhampered by tradition and custom.
 - c. Belief in the worth of the common man.
 - (1) The beginnings of modern democracy.
 - (2) Contributed to the French Revolution.
 - (3) Similar belief expressed in the American Declaration of Independence.
 - d. Sympathy with child life.
- 4. The *Émile* or education according to nature.
 - a. Meaning of nature.
 - (1) Habit or primary disposition, not acquired by direct imitation.
 - (a) Hence natural instincts or first impressions are more trustworthy than experience.
 - (2) Man governed by the laws of his own nature.
 - (a) Not consistent with the laws of society.
 - (3) Contact with the phenomena of nature.
 - (a) To counter the evil influences of association with others.

- b. Conception of negative education.
 - (1) Permitting the free development of the child according to his own nature.
 - (2) Guarding him from evil influences.
 - (3) Withholding direct instruction.
 - (4) Training the senses as a preparation for the reason later.
 - (5) Applied to physical education.
 - (a) Great freedom in the country.
 - (b) Simple life.
 - (6) Applied to intellectual education.
 - (a) Little instruction before the age of twelve.
 - (b) No reading, working, or reasoning.
 - (7) Applied to moral education.
 - (a) Doctrine of natural consequences.
 - (b) Lacks motive and idea of duty.
 - (c) Calls for power of reasoning which the pupil has not yet acquired.
- c. Education divided into periods, according to pupil's aptitude or development.
 - (1) Age: 1-5 years.
 - (a) Father, teacher — mother, nurse.
 - (b) Physical training: games.
 - (c) Little instruction and moral training.
 - (2) Age: 6-12 years.
 - (a) Negative.
 - (b) Following law of natural consequences.
 - (c) Still no direct intellectual training.
 - (d) Natural training of senses through observation.
 - (3) Age: 13-15 years.
 - (a) Gaining of knowledge.

- ### :- Education of women.

- ### 5. Effect of Rousseau's work.

- a. Lay bare defects and abuses in education.
- b. Stimulated minds and promoted educational literature.
- c. Made the child the important factor in education.
 - (1) Training to be adapted to age.
 - (2) Nature and growth to determine the process.
 - (3) Experience to determine the means.
- d. Led to conception of education as a process.
 - (1) A development which lasts through life.
 - (2) An expansion of natural powers.
 - (3) Making sympathy with child therefore an essential of the educative process.
- e. Used instinctive tendencies as starting point in education.
- f. Turned attention to nature and the "natural state" of man.
- g. Did much to prepare the way for modern educational development.
 - (1) Cf. the work of Pestalozzi, Herbart, and Froebel.

Johann Bernard Basedow (1723-1790): the Philanthropist

(Barnard: *Germ. Trs. & Educators*, 487-520, *Journ. of Ed.* v. 5, 487-520; Graves: *Gt. Educators of Three Centuries*, 1121; Kemp: *Hist. Educ.*, 265-269; Misawa: *Mod. Education*, 93-97; Monroe: *Text-Bk. in Hist. Educ.*, 577-583, *I Course*, 297-300; Painter: *Hist. Educ.*, 1st ed., 256-261 ed., 274-279; Payne: *Lects. on Hist. Educ.*, 91-96; Quinn: *Educ. Refs.*, 273-289; Seeley: *Hist. Educ.*, 250-256; Williams: *Hist. Mod. Educ.*, 318-329.)

1. His character and work.

- a. Talented but unstable.
- b. Studied for Lutheran ministry, but was not ordained because not orthodox.
- c. Tutor (1746-1753).
- d. Professor in Danish Academy (1753-1761).
- e. Professor at Antona (1761-1771) — dismissed for orthodox views.
- f. Issued many publications, inspired by reading Rousseau's works.

2. His writings.

- a. Address to philanthropists and men of property: schools and studies and their influence on public welfare (1768).
- b. Book on methods, based upon the methods of experiment (1770).
- c. Elementary work: resembling the *Orbis Pictus* of Comenius, and following the ideas of Bacon, Comenius, and Rousseau.
 - (1) Conversational exercises on natural phenomena and forces, with illustrations.

- (2) Began a wholly new literature for children, based upon children's character, interests, and needs.

His Philanthropinum (1774).

2. School founded at Dessau to illustrate his principles.

b. Aims.

- (1) To educate youth according to nature.
- (2) To train rich and poor together.
- (3) To train former for leadership in social life and the latter to teach.

. Theories.

- (1) Children to be treated as children not as adults, hence adaptation to capacity.
- (2) Conversational methods of teaching languages (through medium of mother tongue).
 - (a) Aided by games, pictures, and models.
- (3) Training of the senses through object lessons and use of environment.
- (4) Physical exercises and play necessary for natural development.
- (5) Manual training desirable for both educational and social reasons.
- (6) Learning should not be made painful.

. Subject matter taught.

- (1) Man, animals, trees and plants, mathematics (arithmetic, geometry, trigonometry), drawing, French, German, geography, physics, chemistry, astronomy, religion.

influence of his work.

. Widely felt in German education.

. Literature for children spread.

- (1) Campe (1746-1818), the most noted follower of Basedow, was the author of *Robinson der Jüngere*,

from which Wyss modeled his *Swiss Family Robinson*.

- c. Training of teachers improved.
- d. Greater emphasis upon object lessons.
- e. Introduction of trades into German system of schools.
- f. Closer connection between outdoor life and instruction.

EDUCATION BASED ON PSYCHOLOGY

John Henry Pestalozzi (1746-1827) — the Beginnings of Method in Education

(Barnard: *Journ. of Educ.*, v. 3, 401-416, v. 4, 65-126, 343-358, v. 5, 161-186, v. 6, 169-179, v. 7, 153-159, 285-318, 503-729, v. 10, 81-92, v. 16, 765-776, v. 30, 561-572, v. 31, 35-60; Browning: *Educ. Theories*, 170-185; Compayré: *Hist. Ped.*, 417-445; Davidson: *Hist. Educ.*, 229-235; De Guimps: *P., His Life & Wk.*, 1-432; *Encycl. Brit.*, art. on Pestalozzi; Gill: *Systs. of Educ.*, ch. 2; Graves: *Gt. Educators of Three Centuries*, 122-166; Hailman: *Hist. Ped.*, 92-113; Hoyt: *Studies in Hist. Educ.*, 72-96; Jhonnot: *Prins. & Pract. of Teaching* (see index); Kemp: *Hist. Educ.*, 282-291; Krusi: *Life & Wks. of P.*; Misawa: *Mod. Educators*, 116-142; Monroe: *Text-Bk. in Hist. Educ.*, 587-622, *Brief Course*, 307-319; Munroe: *Educ. Ideal*, 179-195; Painter: *Hist. Educ.*, 1st ed., 266-278, 2d ed., 295-306, *Ped. Essays*, 351-368; Payne: *Lects. on Hist. Educ.*, 97-114; Pestalozzi: *Leonard & Gertrude* (ed. Channing, Heath), *How Gertrude teaches Her Children* (Bardeen); Pinloche: *P. & the Mod. Elem. Sch.*; Quick: *Educ. Refs.*, 290-383; Seeley: *Hist. Educ.*, 257-271; Williams: *Hist. Mod. Educ.*, 330-349.)

Growth and meaning of the psychological conception of education.

- a.** Started with naturalistic movement, which referred to method as it grows out of the nature of the child.
- b.** Was an elaboration of the naturalistic conception.
 - (1) Education not an artificial procedure but a natural process of growth from within.
 - (2) Education a development or organic growth, subject to the methods of instruction employed.
- c.** Established the truths that
 - (1) Scientific study of the mind would make possible more accurate interpretation of human nature.
 - (2) The processes of instruction could be formulated from the results of such study.
- d.** Improved educational practices.
 - (1) Better methods of instruction.
 - (a) Based upon laws of the mind.
 - (2) New spirit in instruction.
 - (a) Sympathy for pupil.
 - (b) Consideration of his activities, needs, interests, and abilities.
 - (3) More attention to character and training of teachers.
 - (4) Truer conception of the nature of education.
 - (a) Elementary instruction received new attention.
 - (b) Universal education seen to be possible.
- 2. Life of Pestalozzi (1746-1827).**
 - a.** Early training by his mother.
 - (1) Source of his emphasis upon the importance of love and sympathy in instruction.
 - b.** Social reformer as minister and lawyer (1760-1764), farmer (1765), and teacher (1774).

- c. Educational reformer.
 - (1) School and home for beggars at NeuhoF (1774-1780).
 - (2) Period of literary activity (1780-1801).
 - (3) Orphan school at Stanz (1789-1799).
 - (4) School at Burgdorf (1799-1805).
 - (5) Yverdun Institute (1805-1825).
- 3. His chief writings.
 - a. *Evening Hour of a Hermit* (1780).
 - b. *Leonard and Gertrude* (1781).
 - c. *The Fables* (1797).
 - d. *How Gertrude teaches Her Children* (1801).
 - e. *The A. B. C. of Sense Perception* (1801).
 - f. *The Book for Mothers* (1801).
 - g. *The Song of the Dying Swan* (1826).
- 4. His purpose.
 - a. To improve the poorer classes by education and labor.
 - b. To make elementary education universal.
 - c. To prove that education is "the natural development of inherent powers and capacities."
- 5. His educational doctrine.
 - a. Education is a process of organic growth.
 - (1) Moral culture: the unfolding of the will through love and confidence.
 - (2) Intellectual culture: the unfolding of the reason through exercise, based upon clearness of perception and thought.
 - (3) Physical culture: the development of the physical powers through use, for power and technical skill. · ?
 - b. All education and instruction should be founded upon a knowledge of the natural laws of development of the mind.

- (1) Sense perception is the basis of knowledge.
 - (a) Hence instruction begins with the immediate experience.
 - (b) What is experienced and observed must be connected with language.
- (2) Tuition must keep pace with development.
 - (a) Impressions to be commensurate with the growth of the faculties.
- (3) Subject matter of instruction must be graded.
 - (a) From simple to complex, from concrete to abstract, from near to remote, from known to unknown, from particular to general.
- c. To develop mental power is more the object of elementary instruction than to furnish information.
- d. The school and home must coöperate to promote the child's development.
- e. The means of instruction are number, form, and language.
- i. Methods of application of his principles.
 - a. By sense experience made clear by observation and reflection.
 - (1) Object lessons.
 - (2) Pictures, models, etc.
 - (3) Doing.
 - b. By inspiring spontaneous self-activity as the essential to power and independence.
 - c. By using the immediate environment and the ordinary vocations as means of instruction.
 - d. By connecting number, form, and language with everyday activities and objects.
 - e. By providing facilities and opportunities for self-expression.

7. Results of the work of Pestalozzi.

- a. New object of instruction: to develop rather than to teach.
- b. Education recognized as the primary means of elevating society.
 - (1) Hence the duty and affair of the State to provide for it.
 - (2) And the child is seen to be the important factor in education.
- c. Education an individual matter and must be a natural harmonious development.
- d. Extended the popularity of object teaching, nature study, and sense training.
- e. Created new spirit in schoolroom.
- f. Contributed to development of the kindergarten and the modern American normal school.
- g. Promoted scientific study of the mind and its processes of learning.
- h. Improved methods of instruction.
- i. Led to establishment of schools for defectives and trades schools.

John Frederick Herbart (1776-1841) — the Science of Education

(Adams: *Herbartian Psych. Appl. to Educ.*; Browning: *Educ. Theories*, 195-202; Davidson: *Hist. Educ.*, 232-235; De Garmo: *Herbart & the Herbartians*, 2-98; *Encycl. Brit.*, art. on Herbart; Graves: *Gt. Educators of Three Centuries*, 167-193; Hailman: *Hist. Ped.*, 84 ff.; Herbart: *Pestalozzi's Idea of an A B C of Sense Perception* (ed. Eckoff, Appleton), *Text-Bk. in Psych.* (Appleton), *Outlines of Educ. Doctrine* (ed. Lange & De Garmo, Macmillan); Hoyt: *Studies in Hist.*

Educ., 97-122; Kemp: *Hist. Educ.*, 298-301; Misawa: *Mod. Educators*, 199-222; Monroe: *Text-Bk. in Hist. Educ.*, 622-639, *Brief Course*, 319-329; Painter: *Hist. Educ.*, 1st ed., 315-322; Seeley: *Hist. Educ.*, 278-283.)

1. His life.

- a. Student at Oldenburg *gymnasium* (1788), and at the university of Jena (1794) — devoted particularly to philosophical studies.
- b. First a private tutor in Switzerland (1797-1800), then professor of philosophy in Göttingen (1800-1809 and 1833-1841), and director of pedagogical seminary at Königsberg (1809-1833).
- c. Writer on education and philosophy.
 - (1) *The A B C of Sense Perception*, explaining Pestalozzi's views (1802).
 - (2) *General Pedagogics* (1806).
 - (3) *General Practical Philosophy* (1808).
 - (4) *Text-Book on Psychology* (1816).
 - (5) *General Metaphysics* (1829).
 - (6) *Outlines of Lectures on Pedagogy* (1835).

2. His purpose.

- a. To show how instruction could promote the development of moral character.
 - (1) By formulating an exact psychology.
 - (2) By establishing education as a science.

3. His psychology.

- a. The mind is a unity, possessing but one power, that of entering into relation with its environment.
- b. His doctrine of apperception supplements Pestalozzi's principle of sense perception.

- (1) The power of assimilating new experience with old.
- (2) Sense perceptions are elaborated by interaction and combination into clear ideas.
- c. Consequences of the doctrine of apperception.
 - (1) Emphasizes the importance of proper methods of instruction.
 - (2) Involves consideration of
 - (a) The best means to awaken interest in order to secure strong apperception.
 - (b) The materials of instruction.
 - (c) The arrangement and presentation of them to the learner.
 - (3) Systematizes education.
 - (4) Tends to determine educational values.
- 4. His theory of instruction.
 - a. The "presentations" which constitute the content of the mind are modifiable through the apperceptive process.
 - b. The circle of thought from "presentations" through ideas and desire which leads to volitions and conduct is determined by instruction.
 - c. The work of instruction is
 - (1) To furnish the mind with "presentations."
 - (2) To direct the manner of acquisition.
 - d. Proper apperception depends upon interest.
 - (1) Many-sided interest alone enables ideas to enter into organic relationships with "presentations" already possessed.
 - e. Careful selection and arrangement of the most suitable materials for instruction are necessary for development of unified consciousness.
 - (1) Correlation.

(2) Concentration.

(3) Coördination.

f. The process of instruction follows the nature of the mind's activity and the apperceptive or assimilative character of the mind's growth (formal steps).

(1) Clearness (preparation and presentation).

(2) Association (combination and comparison).

(3) System (generalization and classification).

(4) Method (verification and application).

5. Influence of the teachings of Herbart.

a. Promoted the development of a science of education.

b. Contributed to improvement in the professional training of teachers.

(1) Education has been studied more systematically.

(2) His methods and psychology have been followed widely.

(3) His doctrines of many-sided interest, the formal steps, and correlation have been most influential.

c. Courses of study have been adapted to his theories.

d. Textbooks have been written according to his principles.

e. Interest has been employed in the government of pupils.

f. His influence has been strongest in Germany and in the United States.

Friedrich Wilhelm August Froebel (1782-1852) — the Kindergarten

(Barnard : *Journ. of Educ.*, v. 2, 449-451, vs. 30, 31 (see index) ; Blow : *Symbolic Educ., Mottoes & Commentaries of Froebel's Mother-Play, Songs & Music of F.'s Mother-Play, Letters to a Mother* (Appleton), *Kindergarten Educ.*, in Butler's *Educ. in*

U. S.; Bowen: *F. & Educ. thro' Self-Activity*; Browning: *Educ. Theories*, 220-225; Compayré: *Hist. Ped.*, 447-465; Davidson: *Hist. Educ.*, 235-239; *Encycl. Brit.*, art. on F.; Froebel: *Autobiography* (Bardeen), *Education of Man, Education by Development, Pedagogics of the Kindergarten* (Appleton); Graves: *Gr. Educators of Three Centuries*, 194-236; Hailman: *Hist. Ped.*, 114-122; Harris: in *U. S. Com'r Educ. Rept.*, 1896-1897, v. 1, 899-922; Hoyt: *Studies in Hist. Educ.*, 123-146; Hughes: *F.'s Educ. Laws*, also art. in *Proc. N.E.A.*, 1895, 538-551; Johonnot: *Prins. & Pract. of Teaching* (see index); Kemp: *Hist. Educ.*, 291-298; Misawa: *Mod. Educators*, 166-198; Monroe: *Text-Bk. in Hist. Educ.*, 639-667, *Brief Course*, 329-342; Munroe: *Educ. Ideal*, 195-206; Painter: *Hist. Educ.*, 1st ed., 278-288, 2d ed., 306-315, *Ped. Essays*, 369-382; Quick: *Educ. Refs.*, 384-413; Seeley: *Hist. Educ.*, 272-277; Von Bülow: *Reminiscences of F., The Child & Child Nature*; Williams: *Hist. Mod. Educ.*, 396-405.)

I. His life.

a. Early life and education.

- (1) Brought up by uncle (1792-1797).
- (2) Apprenticed to a forester (1797).
- (3) Student at university of Jena (1799).
- (4) Teacher at Frankfort — visited Pestalozzi — tutor of three boys — studied under Pestalozzi (1805-1808).
- (5) Again student, at Göttingen and Berlin (1811).
- (6) Soldier (1813) — assistant in museum at Berlin (1814).

b. Teacher and reformer.

- (1) His "Universal German Educational Institute" opened at Griesheim (1816), moved to Keilhau (1817), declined (1825).

- (2) Conducted schools in Switzerland (1829-1835).
- (3) First kindergarten at Blankenburg (1837).
- (4) Lectured on kindergarten (1844).
- (5) Won as disciples Baroness Marenholtz-von-Bülow and the celebrated educator Diesterweg (1849).
- (6) Prussian decree forbidding establishment of schools according to his ideas (1850).

Writer.

- (1) *Education of Man* (1826).
- (2) *Family Journal of Education* (1826).
- (3) *Mutter und Kose Lieder* (1843).
- (4) *Education by Development, Pedagogics of the Kindergarten, Letters on the Kindergarten* (1838-1852).

His purpose.

- i. To render education a conscious evolution.
 - (1) By continuous self-activity.
 - (2) Under proper stimuli.
 - (3) With reference to proper objects.
 - (4) Evoked in an orderly way.

Chief characteristics of his philosophy of education.

- i. Unity or inner connection.
 - (1) Fundamental law of education.
 - (2) In the mental and social life of the child, in the teaching process, in the materials of instruction, between the child's development and his life.
- ii. Self-activity, the means of development.
 - (1) Fundamental and essential process of education.
 - (2) Involves doctrines of interest and apperception as applied educational principles.
 - (3) Develops child into a creative rather than an imitative being, an executive as well as a receptive and reflective being.

- c.* Early training of sensations and emotions.
- d.* Evolution of inner nature.
 - (1) Promoted by freedom, stimulating environment, ample opportunity, appropriate knowledge, and self-activity.
- e.* Individuality.
 - (1) The guiding principle in education.
 - (2) Free growth the only full growth.
- f.* Coöperation.
 - (1) Law of unity as applied to the individual in relation to the whole of humanity.
- g.* Nature study, the revelation of unseen forces.
 - (1) Urged as of increasing importance in education.
- h.* Objective work.
 - (1) Means of developing creative faculties through self-activity, not of learning objects nor even of developing power through instruction.
- i.* Manual training.
 - (1) The hand to be the agent in assisting to develop the mind.
- j.* Play.
 - (1) Spontaneous activity of the child to be used as basis of the educative process in the early years.
- 4. The kindergarten.
 - a.* The practical expression of his principles.
 - b.* Intended to connect the home and the school.
 - c.* Characterized by doing, expression, and self-activity.
 - (1) Opportunity given to aid the child to express himself and thus produce development.
 - d.* Furnished means of unity and continuity in the development of the child through the use of "gifts," as playthings, and occupations, games, and songs.

- e.* Afforded training in perception, observation, comparison, and judgment.
- j.* Results of the teachings of Froebel.
 - a.* Influenced all phases of elementary education.
 - b.* Development, self-activity, initiative, and individuality emphasized as the important ends of education.
 - c.* Play, spontaneous activity, manual and industrial work utilized to promote self-realization.
 - d.* Correlation of the materials of study with the child and with life.
 - e.* Process of education determined by the nature of the child.
 - f.* Widely followed in the United States, though less widely in other countries.

THE PLACE OF SCIENCE IN EDUCATION (THE QUESTION OF EDUCATIONAL VALUES)

Chief Theories of Educational Values

1. The value is in discipline, viz.: Locke's theory: that educational value is gained by the process of acquiring a subject rather than from the thing learned.
2. The value is in the method employed, viz.: the psychological conception of education: that educational value can be determined only on the basis of apperception and in accord with the laws of mental development.
3. The value is in the subject matter, viz.: the theory of the scientific movement: that educational value is gained in direct proportion to the application that can be made of the knowledge to life.

Herbert Spencer (1820-1903)

(Compayré: *Hist. Ped.*, 538-556; Dexter: *Hist. Educ. in U. S.*, 343-369; Graves: *Gt. Educators of Three Centuries*, 274-284; Hailman: *Hist. Ped.*, 84-92; Hanus: *Educ. Aims & Values*; Misawa: *Mod. Educators*, 233-244; Monroe: *Text-Bk. in Hist. Educ.*, 684-689, *Brief Course*, 354-358; Painter: *Hist. Educ.*, 1st ed., 335-345, *Ped. Essays*, 399-418; Payne: *Contribs. to Educ.*, 31-68; Quick: *Educ. Refs.*, 439-469; Spencer: *Education* (Appleton); Williams: *Hist. Mod. Educ.*, 373-384.)

1. His life.

a. Early period: born at Derby — educated privately — distaste for classical languages — fondness for mathematics and science.

b. As young man: engineer (1837) — editor of *Economist* (1848-1853).

c. As philosopher and writer: *Social Statics* (1850), *Essays* (1858-1863), *Education* (1861), *First Principles* (1862), *Principles of Biology* (1864-1867), *Principles of Psychology* (1871-1872), *Principles of Sociology* (1876-1880), *Principles of Ethics* (1879).

2. His educational treatise: *Education, Intellectual, Moral, and Physical*, in which emphasis is placed upon science as the knowledge of most worth.

3. His purpose: to show that the aim of education in preparing for complete living can best be promoted by the study of science.

4. His doctrine of values of knowledge.

a. Knowledge that is best for use in life is also best for development of power.

- b. Relative values of knowledge.
 - (1) That necessary for self-preservation.
 - (2) That necessary for gaining a livelihood.
 - (3) That necessary for rearing children.
 - (4) That necessary for citizenship.
 - (5) That necessary for relaxation.
- c. The study of science accomplishes all these ends.
5. Principles of intellectual education.
 - a. Accord with the theories of Pestalozzi.
 - b. Emphasis upon
 - (1) From the simple to the complex.
 - (2) From the concrete to the abstract.
 - (3) From the known to the unknown.
 - (4) From the empirical to the rational.
 - (5) The process of self-development.
 - (6) The theory that the genesis of knowledge in the individual should follow the same course as the genesis of knowledge in the race.
 - (7) Learning being made pleasurable.
6. Theory of moral education.
 - a. Discipline of natural consequences.
 - b. Self-government instead of that of external authority.
7. Emphasis on physical education.
 - a. Physical vigor a fundamental necessity.
 - b. Attention to diet, clothing, exercise, and play.
8. Influence of Spencer's work.
 - a. Led to introduction of science into the curriculum.
 - b. Promoted growth of utilitarian motives in education.
 - c. Added emphasis to and tended to make more scientific the Pestalozzian principles of method.
 - d. Increased the attention to physical education.

3. Ways by which this demand for social improvement through education has been met.
 - a. By public school-systems offering free, compulsory education.
 - b. By endowed institutions for the education of all classes in all kinds of learning.
 - c. By schools for defectives.
 - d. By libraries, lectures, and the press.
 - e. By evening, correspondence, and summer schools.
4. The industrial phase of this type of education.

(Bloomfield: *Vocational Guidance of Youth*; Bolton: *Sec. Sch. Syst. of Germany*, 133-164; Butler: *Educ. in U. S.*, 551-768, arts. as follows: Techn. Scien., and Engineering Educ., by Mendenhall, Agricultural Educ., by Dabney, Com'l Educ., by James, and Industr. Educ., by Clarke; Dexter: *Hist. Educ. in U. S.*, 343-370, 401-423, 454-480; Dutton & Snedden: *Admins. of Publ. Educ. in U. S.*, 404-425, 468-479, 559-596; *English Spec. Repts. on Educ.*, vs. 1, 3, 9, 11, 15; Herrick: *Meaning & Pract. of Com'l Educ.*; MacArthur: *Educ. in Relation to Man. Industry*; Russell: *Germ. Higher Schs.*, 76-109, 329-351; Sharpless: *Eng. Educ.*, 151-169; Snedden: *Probl. of Vocational Educ.*; *U. S. Com'r Educ. Repts.*, 1891-1892, v. 1, 369-412, 1897-1898, v. 1, 709-749; Ware: *Educ. Foundations of Trade & Industry*.)

- a. Aim: to make the individual a productive social unit economically as well as politically.
- b. Manual education.

1. Emphasis upon education in sociological theory.

- (1) Comte: Education is the means of social control.
- (2) Ward: Education results in the dissemination of knowledge, upon which depend general intelligence, and upon this, in turn, depends social progress and happiness.
- (3) Bacon and others: Education is the transmission from one generation to the next of the substance of the learning and culture of the past; and growing out of that thought, it is the development of the power of adjustment to a changing environment.
- (4) Howerth and others: Education is the chief factor in the process of evolution or as some have expressed it, education is conscious evolution.
- (5) Dewey: "Education is the process of remaking experience, giving it a more socialized value through individual experience, by giving the individual better control over his powers."

New aim and meaning of education.

- i. To equip one with that knowledge and the power to use it, which will best fit him to meet the demands of modern social life in its varying activities and relationships.
- ii. The development of a right social attitude which shall involve
 - (1) A healthy body.
 - (2) A trained mind.
 - (3) Moral judgment.
 - (4) Knowledge which gives a comprehensive view of life.
 - (5) Efficiency or skill to use this knowledge for the welfare of the community.

- (a) Public schools.
- (b) Private secondary schools.
- (c) Colleges and universities.
- (4) Giving instruction in bookkeeping, business practice, civics, commercial law, commercial arithmetic, commercial geography, stenography, economics, banking, finance, transportation, insurance, sociology, diplomacy, modern languages.
- f. Industrial and vocational education.
 - (1) To provide means of obtaining a livelihood.
 - (2) Trades schools of elementary and secondary grades.
 - (3) Vocational schools.
 - (4) Industrial courses in public and private schools of all grades.
 - (5) Special industrial schools for defectives, and in the United States for the negroes and for the Indians.
 - (6) Instruction including carpentry, wood carving, pattern making, forging, molding, plumbing, blacksmithing, the textile industries, the machine trades, bricklaying, plastering, stone-cutting, steam- and hot-water fitting, painting, sewing, cooking, millinery, dressmaking, laundry, nursing, housekeeping, etc.

DEVELOPMENT OF PUBLIC ELEMENTARY EDUCATION

(Adams: *Free Schs. in U. S.*; Barnard: *Journ. of Educ.*, v. 4, 545-581 (E.); v. 8, 310-314 (E.); v. 9, 215-224 (Scot.), 170-200 (E.), 381-390 (Fr.); v. 10, 323-531 (E.); v. 11, 254-281 (F.); v. 12, 593-600 (E.); v. 15, 81-117 (E.); v. 16, 5-21 (G.), 609-624 (G.); v. 17, 435-554 (G.); v. 20, 335-360 (G.), 211-332 (F.), 360-434 (G.); v. 21, 401-606 (F.); v. 22, 651-664 (F.), 861-884 (G.); v. 23, 365-368 (E.); v. 26, 561-644 (E.); v. 27, 509-512 (G.); v. 28, 737-738 (E.), 855-860 (E.); Blow: *Kindergarten Educ.* in Butler's *Educ. in U. S.*, 33-76; Boone: *Educ. in U. S.*; Brouard: *L'Instruction Primaire*; Browning: *Educ. Theories*, 226-232; Davidson: *Hist. Educ.*, 225-226, 246-253; Dexter: *Hist. Educ. in U. S.*, 1-101, 155-169; Dutton & Snedden: *Admins. of Publ. Educ. in U. S.* (see contents); *Eng. Educ. Dept. Repts.* nos. 1, 2, 6, 7, 8, 10, 18 (see contents); Greenough: *Evol. of Elem. Schs. of Gt. Britain*; Harris: *Elem. Educ.* in Butler's *Educ. in U. S.*, 77-140; Hinsdale: *Horace Mann & the Com. Sch. Revival in U. S.*; Hoyt: *Studies in Hist. Educ.*, 147-172; Kemp: *Hist. Educ.*, 162-170, 225-227, 269-273, 277-281, 302, 322; Klemm: *Europ. Schs.*; Mann. (Mrs.): *Life of Horace Mann*; Martin: *Evol. of Mass. Publ. Sch. Syst.*; Monroe: *Text-Bk. in Hist. Educ.*, 338-339, 407-408, 410, 433-439, 529, 593, 700-702, 724-738, *Brief Course*, 156-157, 196-198, 207-214, 269-270, 366-368, 382-393; Munroe: *Educ. Ideal*, 207-223; Painter: *Ped. Essays*, 383-398; Parsons: *French Schs. thro' Amer. Eyes, Prussian Schs. thro' Amer. Eyes*; Prince: *Methods of Instr. & Organiz. of Schs. of Germany*, 1-22, 68-76 ff., 183-215; Sharpless: *Eng. Educ.*, 1-51; *U. S. Com'r Educ. Repts.*, vs. 1: 1888-1889, 32-77 (G., F., U. S.), 78-111 (E.), 112-149 (F.); 1889-1890, 263-280 (F. & E.), 299-312, 419-

464 (G.); 1890-1891, 95-124 (F.); 1891-1892, 97-104 (E.), 139-196 (G.); 1892-1893, 203-208 (E.), 323-336 (G.); 1893-1894, 206-297 (G.); 1894-1895, 257-273 (E.), 322-485 (G.); 1895-1896, 79-135 (E.), 138-164 (G.); 1896-1897, 15-27 (E.); 1897-1898, 3-82 (G.); 1898-1899, 3-65 (E.), 125-164 (G.); 1899-1900, 721-894 (G.), 1167-1243 (E.); 1901, 1-128 (G.), 939-1008 (E.); 1902, 647-666 (F.), 1001-1068 (E.); vs. 2: 1890-1891, 705-767 (G. & U. S.); 1899-1900, 1712-1732 (F.); 1908, 186-188, 201-219 (E.), 224-230 (F.), 247-253 (G.); 1909, 375-393 (E.), 408-420 (F.), 448-478 (G.).

I. Began with the Reformation Movement.

a. In Germany.

(1) Luther (1483-1546) said: "The welfare of the State depends upon the education of the individual citizen," and advocated *compulsory State* education for *both sexes* — the city of Magdeburg, in 1524, established a system of schools in accord with his plan.

(2) Melancthon (1479-1560), by the Saxony School Plan, provided grammar schools for all towns and villages of Saxony, — a plan which was copied generally by other German states by 1565.

b. In Switzerland.

(1) Zwingli (1484-1532), author of *The Christian Education of Youth*, did much to promote the cause of education.

c. In Holland.

(1) The Reformed Church, in 1618, in connection with the State undertook the provision of elementary schools in each parish.

l. In France.

- (1) The Jansenists (1637-1661) opened the Little Schools at Port Royal, noted for the use of the mother tongue and for improved methods.
- (2) La Salle (1651-1719) and the Christian Brothers founded many schools, with pupils graded and taught simultaneously in classes.

m. In America.

- (1) A general law was passed in 1647 by the Massachusetts Bay Colony, ordering the starting of an elementary school in every town of fifty families.
- (2) Following this example provisions of similar character were made in the other colonies from this time up to the Revolutionary War.
- (3) This elementary instruction was not free, however, until the nineteenth century.

n. In Scotland.

- (1) By coöperation of Church and State, an act was passed in 1696 requiring the establishment of a school for elementary instruction in every parish.

Promoted by Comenius, realist (1592-1670).

2. Improved methods, changed curriculum, wrote first illustrated textbook, and provided both an infant school and a vernacular school.

Enthusiasm stirred up by Rousseau (1712-1778) and Bas-
dow (1728-1790), naturalists.

3. Rousseau popularized education and made the child the positive factor in the process — also

caused the introduction of new subject matter into the school.

b. Basedow's work was the direct outgrowth of that of Rousseau.

(1) Planned complete system of reformed elementary education, for the first time designated wholly for children, not controlled by the standards of adults.

(2) Began the first literature designed wholly for children — inspired the writing of *Swiss Family Robinson*.

4. Influence of the French Revolution (1789).

a. Furthered the extension by the State of the privileges of education to all classes.

5. Awakening in England.

a. Parochial schools, primary school foundations, subscription schools, and dame schools in villages (early eighteenth century).

b. Monitorial systems of Bell and Lancaster (1797).

c. Educational societies (from 1808).

(1) Whose work in promoting universal elementary education has continued throughout the nineteenth century.

6. New interest aroused by Pestalozzi (1766-1827), Herbart (1776-1841), and Froebel (1782-1852), psychologists.

a. Pestalozzi urged a practical and universal elementary education as a necessity to reform society, and improved the methods of instruction by basing them upon psychological principles.

b. Herbart continued and perfected Pestalozzi's work with

regard to methods of instruction, making apperception, interest, correlation, "method," etc., most important features of modern elementary teaching.

- c. Froebel founded the kindergarten, whose spirit of sympathy and whose principle of development by self-activity have permeated all elementary school work.
- 7. Four state systems developed in the nineteenth century.
 - a. Germany.
 - 1808-1811. Introduction of Pestalozzian methods.
 - 1818. Ministry of education created.
 - 1825. Steps toward compulsory attendance.
 - 1833. Attempt to abolish tuition fees.
 - 1850. Supremacy of the State in education established by the constitution.
 - 1872. Demand for uniform educational system — State supervision established by law.
 - 1888. General abolition of tuition fees.
 - b. France.
 - 1808. University of France created.
 - 1815. Commissioner of Public Instruction provided for.
 - 1824. Ministerial department of education established.
 - 1833. Guizot's law founding the French national system of education — partial State supervision and support — compulsory attendance — private and public schools.
 - 1850. Communal control of local schools.
 - 1870. Extension of supervision.
 - 1881. Elementary instruction made free.

1882. Elementary instruction made compulsory between ages of 6 and 13.

1900-1903. Schools made non-religious.

1904. Religious teaching orders suppressed.

c. England.

1808. Royal Lancastrian Institution founded to promote the Lancastrian system of schools (became in 1814, The British and Foreign School Society).

1811. The National Society, to found schools according to the system of Bell (Church of England).

1824-1868. Many educational societies formed.

1832. First public money grant for education, continued ever since.

1839. Committee of Council on Education instituted to supervise the distribution of the grants.

1842-1852. Parliamentary grants greatly increased: 3800 schools, 540,000 pupils.

1856. Education Department formed.

1862. System of "payment by results" begun.

1870. Elementary Education Act, establishing a national system of education — schools organized, supported, and supervised by the State.

1880. Elementary education under ~~10~~ 7 years of age made compulsory.

1891. Elementary education under 10 years of age made free with governmental supervision.

1899. National Board of Education established — instruction made compulsory up to 12 years of age.

1900. Local boards permitted to make education compulsory up to 14 years of age.

United States¹ (not a national system): development in ten representative states.

(1) District of Columbia.

1804. System of elementary schools inaugurated.

1848. Elementary schools made free.

1862. Colored schools provided.

1869. Superintendent of schools appointed.

1874. Board of trustees placed in control.

(2) New York.

1795. General school law enacted to encourage the establishment of schools throughout the state.

1805. Public School Society of the City of New York chartered to found free schools.

State common-school fund established by legislature.

1812. Office of State Superintendent of schools created.

1813. State divided into districts for school purposes, under the supervision of township commissioners.

1818. Monitorial system tried in New York city, under the direction of Joseph Lancaster, Englishman.

1841. County Superintendents provided.

1849. System of free schools begun for the entire state.

1853. First act providing for union free schools.

Free public elementary instruction to-day in all states of the Union, and in most of the states attendance compulsory, although the laws differ in lengths of school year and in numbers of years required.

- 1867. System of free schools in full operation. Free school fund established.
- 1874. Compulsory Education Law, fixing age from 8 to 14 years (raised to 16 years later).
- 1900. Enacted that no person should be refused admission into or be excluded from any public school on account of race or color.
- 1904. State Commissioner of Education appointed.
- (3) Massachusetts.
 - 1789. School law provided schools to be supported by local districts.
 - 1826. Public supervision extended.
 - 1834. Permanent school fund established.
 - 1837. State board of education created — Horace Mann, secretary.
 - Elementary instruction made free.
 - Attendance made compulsory.
 - Appropriations doubled.
 - 1846. Special agents of the board appointed.
 - 1854. City and town superintendents authorized.
 - 1869. Consolidation of rural schools inaugurated.
 - 1883. Evening schools started.
 - 1884. Free textbook law enacted.
 - 1902. Superintendent of schools required by law in every town and city.
 - 1910. Office of State Commissioner of Education created.
- (4) Connecticut.
 - Up to 1825. District plan of local support and control of elementary schools.
 - 1825. Lancastrian system adopted.
 - 1826. State supervision tried.

- 1837. Complete system of organization.
- 1838. State Board of Commissioners established — Henry Barnard, secretary.
- 1839. Elementary education made free.
- (5) Virginia.
 - 1818. General provision for elementary education.
 - 1846. School districts, county commissioners, and district trustees provided.
 - 1870. New constitution adopted, providing a full State system of free schools.
- (6) Ohio.
 - 1821. First public school law enacted.
 - 1847. Graded schools provided.
 - 1853. Elementary education made free.
 - 1900. Consolidation of rural schools inaugurated.
- (7) Indiana.
 - 1824. General school law enacted, providing for schools to be established in all districts.
 - 1852. School tax imposed — also opposed.
 - 1867. School tax made constitutional.
- (8) Illinois.
 - 1825. System of free schools begun — law ineffective in 1827 and not fully reënacted for years.
 - 1854. First state superintendent of schools.
 - 1855. Elementary education made free.
- (9) Tennessee.
 - 1830. First provision for elementary instruction.
 - 1891. Graded schools established.
- (10) Mississippi.
 - 1846. First law providing general school system — not fully carried out until after Civil War.
 - 1870. Complete system established by legislature.

DEVELOPMENT OF SECONDARY EDUCATION

(Arnold: *A French Elton, & Schs. & Univs. of France*; Barnard: *Journ. of Educ.*, v. 5, 689-699 (G.); v. 8, 257-282 (E.); v. 16, 657-688 (E.); v. 17, 435-544 (G.); v. 21, 401-606 (F.); v. 24, 433-436 (E.); v. 28, 729-742 (E.), 749-752 (E.); Bolton: *Sec. Sch. Syst. of Germany*, 1-384; Boone: *Educ. in U. S.*; Brown (J. F.): *The Am. High Sch.*, 1-38; Brown (E. E.): *Hist. Sec. Educ. in Am.* (*Sch. Rev.*, vs. 6, 7, 1897-1898), *The Making of Our Middle Schs.*, chs. 11, 14; Browning: *Educ. Theories*, 202-225; Butler: *Educ. in U. S.*, 141-768; Dexter: *Hist. Educ. in U. S.*, 90-96, 170-181; Dutton & Snedden: *Admins. of Publ. Educ. in U. S.* (see contents); *Eng. Educ. Dept. Repts.*, nos. 1, 2, 3, 6, 9, 11, 19, 20, 24 (see contents); Farrington: *French Sec. Schs.*, 1-338; Fitch: *Matthew and Thomas Arnold*; Gill: *Systs. of Educ.*, 1-47; Kemp: *Hist. Educ.*, 171-192, 323-332, 337-338; Klemm: *Europ. Schs.*; Lange: *Higher Educ. of Women in Europe*; Monroe: *Text-Bk. in Hist. Educ.*, 389-397, 418-419, 527-528, 697-700, *Brief Course*, 183-187, 200-201, 266-270, 363-366; Munroe: *Educ. Ideal*, 207-223; Prince: *Meths. of Instr. & Organiz. of Schs. of Germany*, 44-66, 205-215; Russell: *Germ. Higher Schs.*, 1-475; Sharpless: *Eng. Educ.*, 75-169; Ware: *Educ. Foundations of Trade & Industry*; U. S. Com'r Educ. Repts., vs. 1, 1888-1889, 33-77 (G., F., U. S.), 112-149 (Fr.); 1889-1890, 281-292, 314-407, 455-464 (G.); 1890-1891, 109-124 (F.), 135-150 (E.); 1891-1892, 105-137 (E.), 369-412 (F.); 1894-1895, 289-312 (F.), 583-712 (E.); 1895-1896, 635-639 (F.); 1896-1897, 126-206 (G.); 1897-1898, 3-82 (G.), 694-788 (F.); 1898-1899, 201-203 (G.), 1106-1138 (F.); 1899-1900, 45-84 (E.), 721-894 (G.); 1901, 1-128 (G.), 939-1008 (E.), 1103-1109 (F.); 1902, 685-

8 (F.), 1001-1068 (E.); 1905, 76-80 (F.); 1906, 30-32 (F.); 1907, 143-157 (F.); 1908, 188-193 (E.), 230-238 (F.), 34-274 (G.); 1909, 420-432 (F.), 492-496 (G.).

The Classical schools of the Renaissance.

a. In England under the influence of Erasmus, More, Roger Ascham, and John Colet.

(1) Eton, 1441; St. Paul's, 1512; Shrewsbury, 1551; Westminster, 1560; Rugby, 1567; Harrow, 1571; Charterhouse, 1609.

(2) Devoted exclusively to formal study of Greek and Latin languages and literatures.

(3) Mathematics, science, history, and modern languages introduced only in the nineteenth century.

b. In Germany through the work of John Sturm and Melancthon.

(1) First *gymnasium* at Strassburg in 1538 — Sturm, the rector — course completely organized and graded, with ten classes — devoted to religion, and Greek and Latin classics, German being studied only incidentally.

(2) Courses of study of these new secondary schools were formed either by the direct advice or under the influence of Melancthon, whose pupils became in many cases *gymnasium* rectors.

(a) The Saxony Latin Schools, his first foundations (see p. 81).

(3) Long the type of German secondary schools.

c. In Catholic countries, founded by the Jesuits in 1540.

(1) Classical schools of five grades, covering five to seven years, devoted to formal study of Greek and Latin.

- (2) Thoroughly organized and work carefully systematized, teaching gratuitous, but results narrow and showy.
- (3) Greatly influenced the development of secondary education in Germany.
- 2. The *Ritterakademien* of the seventeenth century.
 - a. Schools for German nobles.
 - b. Resulted from the affectation by the youth of French ways and ideals.
 - c. Included instruction in the French language and literature, mathematics, physics, political science, geography, history, law, etc.
- 3. The Latin Grammar Schools in New England.
 - a. Boston Latin School established in 1635.
 - b. Included classical college-preparatory courses.
 - c. Religious spirit strong.
 - d. Tuition not free.
- 4. Influence of the realistic movement.
 - a. Ratich (1571-1635) and Comenius (1592-1670).
 - (1) New methods of teaching.
 - (2) Urged study of natural science and the vernacular.
 - b. *Realschulen* or real-schools.
 - (1) First established by Hecker in Berlin, in 1747, for those who did not propose to enter the learned professions.
 - (2) Offered instruction in religion and ethics, German, French, Latin, writing, arithmetic, drawing, history, geography, geometry, mechanics, architecture, and trades.
 - (3) Widely copied throughout Germany.
 - c. Academies.
 - (1) In England.

- (a) Founded by Dissenters, who were excluded from the public schools and the universities.
- (b) Provided direct preparation for the practical occupations of life.
- (c) Curriculum included "real" studies, English, French, Italian, logic, history, economics, natural philosophy, geography, algebra, geometry, surveying, trigonometry, mechanics, etc.
- (2) ~~In America.~~
 - (a) Character similar to that of English academies.
 - (b) Purpose: to meet the needs of those who did not intend to go to the universities, but who wished a complete practical education.
 - (c) The first one: "The Academy and Charitable School of Pennsylvania," opened in 1751.
 - (d) Became a distinct type of secondary school in the United States, being founded in great numbers after the Revolutionary War.
 - (e) Began as private schools — later many were incorporated into the State systems of schools.

Development in the nineteenth century.

a. France.

- 1802. Modern system of secondary education organized by the establishment of
 - (1) *Lycées*, supported by the State.
 - (2) *Collèges*, supported by the commune. Both to prepare for the university and the higher professional schools, and for civil service.
- 1814. Modern languages made part of the regular course — work in history extended.
- 1815-1848. *Lycées* called Royal Colleges.

- 1828. Instruction in science brought up to that in letters.
- 1848. Name of *lycée* resumed.
- 1852. Two courses established: (a) in letters, (b) in science.
- 1880. *Lycées* and *collèges* for girls created.
- 1890. Curriculum reorganized, providing both a classical and a modern baccalaureate.
- 1902. Curriculum again reorganized, providing two cycles of studies with a single baccalaureate.

b. Germany.

- 1808. Reorganization of secondary education by Humboldt.
- 1817. Ministry of education created.
- 1820. (Approximately.) Admission to civil service conditioned upon graduation from the *gymnasium*.
- 1825. Separation from the Church accomplished and State control assured.
- 1834. Admission to learned professions conditioned also upon graduation from the *gymnasium*.
- 1800-1835. Period of foundation of technical schools.
- 1837. Uniformity in instruction and in organization attained and Greek made obligatory.
- 1840-1870. Period of specialization.
- 1856. Gymnasial program reorganized but remained distinctly classical.
- 1859. *Realschulen* officially recognized and two types provided: one with full nine-year course and with Latin throughout, the other, with curriculum determined largely by local authorities.

- 1873. German Association for the Secondary Education of Girls formed.
- 1875. Secondary schools for girls placed in general class of *höhere schulen* with those for boys.
- 1875 and following years. Period of development of technical high schools.
- 1882. *Realschulen* reclassified :
 - (1) *Realgymnasien*, with nine-year Latin-scientific course which prepared for the university and for the higher technical schools.
 - (2) *Oberrealschulen*, with nine-year course without Latin, to prepare for the university and for technical and industrial pursuits.
 - (3) *Realschulen*, with six-year course in modern languages and natural science, to prepare for practical life.
- 1893. Special regulations of the ministry of education passed concerning secondary schools for girls, giving official definition to them and providing an official program of study.
First *mädchengymnasium* established at Karlsruhe.
- 1900. Royal decree giving equal value to training in the *gymnasium*, the *realgymnasium*, and the *oberrealschule*.
- 1902. Privileges of *realschule* greatly extended.
- 1908. Secondary schools for girls made equal in rank with those for boys.
- c. England.
Up to 1865. Different kinds of secondary schools, on private foundations only, with little or no inspection.

(1) The "Public Schools" (cf. p. 77).

(2) The "Grammar Schools."

(3) Endowed schools.

(4) Technical schools.

1865. Royal Commission appointed to investigate secondary education — reorganization of programs — modern languages and science introduced — better inspection.

Establishment of secondary schools for the common people, as higher elementary schools or as preparatory schools to teachers' training colleges.

1872. Secondary education for girls provided.

1889-1890. London County Council empowered to establish and support technical schools of secondary grade.

1902. Government made grants to the support of these technical schools provided 25 per cent of the students were non-paying — similar grants were made to the public secondary schools.

(Even up to the present time the endowed "Public Schools" or "Grammar Schools" are the only schools which provide a liberal secondary education preparatory to the university and professional life.)

7. United States.

Up to 1821. Private academies and Latin grammar schools the only ones of secondary grade.

1821. First public high school in Boston.

1821-1839. Six others founded at Portland, Worcester,

New Bedford, Cambridge, Taunton, and Philadelphia.

1839-1849. Six additional ones founded.

These public high schools combined the features and functions of both the academies and the Latin grammar schools, were free and were publicly supported.

Since 1860. Phenomenal growth of high schools.

1870. 160 high schools.

1880. 800 high schools.

1890. 2526 high schools.

1900. 6005 high schools.

1905. 7576 high schools.

1909. 10,213 high schools.

Sphere of high school work ever widening to meet the needs of all students — now includes classical, Latin-scientific, modern-language, English, scientific, commercial, manual training, industrial, and art courses.

High schools provide free tuition, in some states free textbooks — are secular and are supported by state funds.

1892-1894. Committee of Ten of the National Educational Association accomplished the standardization of the courses of study and methods of instruction of secondary education.

DEVELOPMENT OF PROFESSIONAL TRAINING OF TEACHERS

(Bolton: *Sec. Sch. Syst. of Germany*, 55-128; Boone: *Educ. in U. S.*; Compayré: *Hist. Ped.*, 404-405; Brown: *The Tr. of Teachers for Sec. Schs.*, Pt. 1 (G.), Pt. 2 (U. S.); Dexter: *Hist. Educ. in U. S.*, 371-400; Dutton & Snedden: *Admins. of Publ. Educ. in U. S.* (see contents); *Eng. Educ. Dept. Repts.*, nos. 1, 2, 3, 6, 9, 10, 18 (see contents); Farrington: *French Sec. Schs.*, 103-123, 345-377; Hinsdale: *Training of Trs. in Butler's Educ. in U. S.*, 359-408; Kemp: *Hist. Educ.*, 192, 234, 239-240, 249-251, 319-321; Monroe: *Text-Bk. in Hist. Educ.*, 424-425, 439, 467, 498, 627-639, 668, *Brief Course*, 204-205, 213, 230, 249, 322-329, 343; Parsons: *Prussian Schs. seen thro' Amer. Eyes, French Schs. seen thro' Amer. Eyes*; Prince: *Methods of Instr. & Organiz. of Schs. of Germany*, 35-43, 183-204; Russell: *Germ. Higher Schs.*, 352-369; Sharpless: *Eng. Educ.*, 52-74; *U. S. Com'r Educ. Repts.* vs. 1: 1888-1889, 32-77 (G. & F.); 1891-1892, 139-196 (G.); 1893-1894, 206-244 (G.); 1894-1895, 322-485 (G.); 1895-1896, 138-164 (G.); 1897-1898, 3-82 (G.), 133-167 (E.); 1898-1899, 201-203 (G.); 1901, 647-666 (F.); 1908, 244 ff. (F.), 252-256 (G.); 1909, 375-377 (E.), 452-453, 471, 479, 484-485 (G.).)

1. Sixteenth and seventeenth centuries.

a. Jesuits (organized in 1540).

(1) Members of order received training as student teachers under supervision of elders.

b. Mulcaster in England urged, in 1581, that the universities should offer training for teachers as they did for practice of law, medicine, and theology.

- c. Christian Brothers.
 - (1) In 1685, first institution opened at Rheims for training members of order for their work.
 - (2) Normal schools with primary schools for practice teaching established afterwards.
- d. Francke (1692-1707) trained his teachers for their work in *seminarium selectum praeceptorum*.
- 1. Eighteenth century.
 - a. Germany.
 - 1735. First State teachers' seminary established by Frederick William of Prussia.
 - 1738. University work in education inaugurated.
 - (1) Pedagogical seminary at Göttingen.
 - (2) Soon copied by other universities.
 - 1763. State teachers' examinations in certain subjects ordered.
 - 1771. Normal school established at Vienna.
 - b. France.
 - 1794. First normal school (at Paris) provided by law.
 - c. United States.
 - 1789-1800. Various published articles appeared, urging better preparation of teachers.
- 3. Nineteenth century.
 - a. Promoted by theorists and teachers.
 - (1) Pestalozzi, whose teachings have been widely incorporated in the training of teachers.
 - (2) Herbart, especially his principles of apperception, interest, correlation, and the formal steps in teaching.
 - (3) Froebel, with the doctrine of the kindergarten, of self-activity, and of development.

- (4) Horace Mann,¹ school administrator, the father of normal schools in the United States.
- (5) David P. Page, author of first textbook on pedagogy: *The Theory and Practice of Teaching* — first principal of the first normal school in the state of New York, established at Albany.
- (6) Henry Barnard, organizer of the National Educational Association (of teachers) — first United States Commissioner of Education (1867).

b. Germany.

Before 1800, 14 pedagogical seminaries had been established — one in nearly every state, supported wholly or partly by the State.

1807. First State test (*Staatsprüfung*) for teachers established by law.

1809. Herbart called to university of Königsberg, where he opened a pedagogical seminary. Zeller, pupil of Pestalozzi, also engaged in training of teachers at Königsberg. These influences brought improvements in the training of teachers — new pedagogical seminaries were established — the old ones were reorganized.

1810. Edict of 1807 went into effect, fixing the quali-

¹ (See Davidson: *Hist. Educ.*, 246-253; Dexter: *Hist. Educ. in U. S.*, 98-101; Graves: *Gt. Educators of Three Centuries*, 249-273; Hinsdale: *Horace Mann & the Com. Sch. Revival in U. S.*; Hoyt: *Studies in Hist. Educ.*, 147-172; Mann (Mrs.): *Life of Horace Mann*; Monroe: *Text-Bk. in Hist. Educ.*, 735-736; Painter: *Ped. Essays*, 383-398; *U. S. Com'r. Educ. Repts.*, va. 1: 1895-1896, 887-927, by Harris; 1896-1897, 715-767, by Mayo.)

fications of teachers and substituting State control for local tests.

1810-1849. Ninety pedagogical seminaries were established.

1826. *Staatsprüfung* abolished and a trial year (*Probejahr*) substituted.

1831. Normal schools first established.

1874. First State examination for women teachers.

1882 and 1885. Teachers' pension laws.

By 1889. 106 normal schools for men, 8 for women.

1890. Extra year of training added to preparation of teachers (*Seminarjahr*) which preceded the trial year.

1901. Graduates of any secondary school admitted to State examination for license to teach in secondary schools, without restriction as to particular subjects.

c. France.

1808. Higher normal school for secondary school teachers founded.

1814-1830. 12 normal schools for elementary school teachers established.

1833. Every department was ordered to establish a normal school by itself or in conjunction with one or more other departments — this resulted in the establishment of 47 primary normal schools.

1860-1863. 7 more normal schools created.

1867. Reorganization of programs of study — agriculture introduced — salaries increased.

1880. First higher normal school for girls to train teachers for secondary schools.

1880-1882. 2 normal schools established, one for men, one for women, for higher primary school teachers.

1886. Every department required to have 2 normal schools, one for men, one for women.

1899. Teachers required to be lay teachers.

1903. Higher Normal School made a part of the university of Paris — degree of *agrégation* given at graduation, entitling the holder to position in secondary school or to receive the salary if no position be vacant.

d. England and Scotland.

1827. First normal school at Glasgow.

1839. First inspector of schools, — movement begun to start a normal training college for teachers in England.

1843. Government aid given to provide for training colleges.

By 1851. 25 training colleges had been established, offering professional training to 6000 pupil-teachers.

1870. Extension by law of resources of training colleges.

1890. Special provisions passed concerning training colleges, giving them official standing. 43 training colleges created by this date, 17 for men, 25 for women, 1 for men and women. First day-training colleges established and attached to university colleges.

1904. Government contributed 25 per cent of cost of maintenance of training colleges, the local authorities the remainder.

1907. Number of training colleges increased to 74.
1908. Enacted that training colleges receiving public grants must admit one half of their pupils without denominational tests — also that no new training college should be established unless free from denominational instruction.
- 9000 pupils admitted to training colleges by free competition.
1909. Government increased its aid to support of training colleges to 75 per cent of cost.
- e. United States.
1823. Private training school opened at Concord, Vt., by Samuel R. Hall.
1827. New York legislature passed a law for the promotion of the training of teachers, but it was ineffective.
- 1831-1834. Academies provided training for teachers.
1839. First teachers' institute, Hartford, Conn.
- First normal school, Lexington, Mass.
1840. First teachers' institute in New York.
1844. First normal school in New York, at Albany.
1845. Teachers' institutes held for the first time in Massachusetts and Rhode Island.
1846. Teachers' institutes held for the first time in New Hampshire and Vermont.
1847. Teachers' institutes held for the first time in Maine.
1850. Brown University gave pedagogical courses for 5 years.
1852. Boston City Normal School founded.
- Since 1852. Growth of training schools.
- By 1875. 70 public normal schools.

- By 1800. 84 public normal schools, 21 city training schools.
- By 1902. 108 private normal schools, 44 city training schools.
- By 1905. 535 institutions giving professional courses.
- By 1910. 196 public normal schools.
919 public institutions and 338 private institutions giving professional courses.
1873. Iowa University offered pedagogical courses.
1874. First university chair in education at University of Michigan.
1882. Teachers' reading circles started.
1884. Number of universities giving pedagogical courses greatly increased.
- By 1884. 6 universities.
- By 1893. 83 universities.
- By 1902. 247 universities.
1888. Teachers' College opened at Columbia University.
1890. School of Pedagogy opened at New York University.
- 1893-1895. Committee of 15 accomplished the standardization of the preparatory courses of study for the training of teachers.
1894. Teachers' training classes organized.
1901. School of Education opened at Chicago University.
4. Certification of teachers.
- County certification by examination.
 - State certification by examination — of various grades.
 - Certification by graduation from normal schools, training colleges, training schools, and training classes, pedagogical seminaries, colleges, and universities.

- Generally accepted standard of preparation.
 - a. Scholarship, both general and special, gained by an academic course of at least one grade higher than the grade of teaching for which it is to qualify.
 - b. Professional training, including the study of psychology, history and principles of education, general method, special method, school hygiene, school organization and school management.
 - c. Practice teaching and observation.

MODERN SCHOOL SYSTEMS

[Bolton: *Sec. Sch. Syst. of Germany*, 1-54; Boone: *Educ. in U. S.*; Dexter: *Hist. Educ. in U. S.*, 182-206; Draper: *Educ. Organiz. & Admins.*, in Butler's *Educ. in U. S.*, 1-32; Dutton & Snedden: *Admins. of Publ. Educ. in U. S.* (see contents); *Eng. Educ. Dept. Repts.*, vs. 1 (G., F., E.); 2 (F., E.); 3 (G.); 6 (E.); 7 (F.); 9 (G.); 10 (U. S.); 11 (U. S.); 15 (U. S.); 16 (F.); 18 (F.); 20 (G.); 21 (E.); 22 (G., F.); 24 (F.); Farrington: *French Sec. Schs.*, 84-122; Kemp: *Hist. Educ.*, 304-305, 325, 343-344 (F.), 305-307, 324-325, 338-340, 343 (E.), 302-303, 323-326, 344-345 (G.), 310-311, 314-315, 319-321, 327-332, 334, 337-338, 345-348 (U. S.); Monroe: *Text-Bk. in Hist. Educ.*, 729-731 (G.), 731-733 (F.), 733-734 (E.), 734-739 (U. S.), *Brief Course* 386-388 (G.), 388-389 (F.), 389-391 (E.), 391-393 (U. S.); Painter: *Hist. Educ.*, 1st ed., 291-296 (G.), 296-302 (F.), 320-325 (E.), 2d ed., 356-362 (G.), 363-370 (F.), 371-391 (E.), 391-394 (U. S.); Parsons: *Prussian Schs. seen thro' Amer. Eyes*, *French Schs. seen thro' Amer. Eyes*; Perry: *Out-*

lines of Sch. Admins.; Prince: *Methods of Instr. & Organiz. of Schs. of Germany* (see contents); Russell: *Germ. Higher Schs.*, 108-155; Seeley: *Hist. Educ.*, 289-295 (G.), 296-303 (F.), 309-314 (U. S.); Sharpless: *Eng. Educ.*, 16-51, 75 ff.; *U. S. Com'r Educ. Repts.*, vs. 1: 1888-1889, 32-77 (G., F.), 77-111 (E.), 112-149 (F.); 1889-1890, 455-464 (G.); 1890-1891, 125-134 (E.); 1891-1892, 73-95 (F.); 1892-1893, 208-218 (E.), 1268-1275 (U. S.); 1894-1895, 257-273 (E.), 289-312 (F.), 583-712 (E.); 1895-1896, 79-135 (E.), 611-639 (F.); 1896-1897, 29-70 (F.); 1897-1898, 3-82 (G.), 133-167 (E.), 694-701 (F.); 1898-1899, 3-65 (E.), 357-450 (U. S.); 1899-1900, 284-302, 427-537 (U. S.); 1901, 1-128 (G.), 939-1008 (E.); 1902, 647-666 (F.), 1001-1068 (E.); 1906, 35 ff. (G.); v. 2: 1899-1900, 1712-1732 (F.).

Germany (Prussian System taken as the Type)

1. Administration.

a. Minister of education appointed by the Crown.

- (1) Supervision of all schools public and private.
- (2) Assistants — 2.
- (3) Counselors — 19.
- (4) Departments of Inspection.

b. Provincial school boards — 13.

- (1) Secondary school affairs and normal schools.
- (2) Trained inspectors (3 or 5) appointed by Crown.

c. Examination commission.

- (1) Certification of secondary school teachers.
- (2) Experts in education (10 to 20) appointed by the minister.

d. Supervision of religious affairs.

- (1) General superintendent of the Evangelical Church in each province.

- (2) Catholic bishops.
- e. City school boards.
 - (1) Municipally supported schools.
 - (2) Members of city council (1 to 3).
 - (3) Limit supervision.
- f. District school boards.
 - (1) Limited to districts within provinces.
 - (2) Inspectors of school work.
- g. Local school boards.
 - (1) Inspection of school property.
 - (2) Little supervision of school work.
- 2. Kinds of schools.
 - a. Kindergartens.
 - b. Public elementary schools (*Volkschulen*).
 - (1) Special features.
 - (a) Compulsory — 6 to 14 years of age.
 - (b) Free through elementary grade.
 - (c) Religious instruction included.
 - (d) State-governed.
 - c. Continuation schools.
 - (1) For instruction in trades, industries, commerce, agriculture, and general subjects.
 - d. Secondary schools.
 - (1) 9-year classical school (*gymnasium*).
 - (2) 9-year Latin-scientific school (*realgymnasium*).
 - (3) 9-year non-classical school (*oberrealschule*).
 - (4) 6-year non-classical school (*realschule*).
 - (5) 9-year modern-language school for girls (*höhere mädchenschule*).
 - (6) 5-6-year classical school for girls (*mädchengymnasium*).
 - e. Training schools for teachers.

- (1) Normal schools, to prepare elementary school teachers.
 - (2) Gymnasial seminaries, to prepare secondary school teachers.
 - (3) Elementary school seminaries, to prepare for elementary teaching.
 - (4) University seminaries, for more scientific study of education — may prepare for any grade of school.
 - (5) In each, one year is devoted to theory and one year to practice.
- f. Universities.
- g. Higher professional and technical schools.

France

1. Administration.

a. Minister of Public Instruction and Fine Arts.

- (1) Departments of primary, secondary, and higher education and finance.
- (2) Higher council, a general advisory board.
- (3) Many special boards and commissions.
- (4) State inspectors, responsible to the minister.

b. Seventeen administrative districts (*académies*).

- (1) Each having a university and associated *lycées* and communal *collèges*, under supervision of a rector and an academic council.
- (2) Primary instruction in each being supervised by an academic inspector appointed by the minister, with aid of primary inspectors.

c. Ninety *départements*, for the administration of primary education.

- (1) Prefect of the department.

- (2) School boards.
- (3) Inspectors, the academic inspector being the chief, with assistants in each department.

d. Communal school boards.

- (1) To manage school buildings and school funds of the district.

e. Local school committees.

- (1) To encourage attendance and to promote general interest.

f. State control highly centralized.

- (1) Minister absolute.
- (2) Appointment of teachers.
- (3) Salaries and pensions.
- (4) Programs of study.
- (5) Supervision of private as well as public instruction.

. Kinds of schools.

a. Schools for beginners.

- (1) Maternal schools (*écoles maternelles*) for pupils of both sexes from 2 to 6 years of age.
- (2) Infant schools (*classes enfantines*) for pupils of both sexes from 4 to 7 years of age.

b. Primary schools.

- (1) Lower primary schools (*écoles primaires élémentaires*).
 - (a) One in each commune for boys and one for girls.
 - (b) Attendance, from 6 to 13 years of age.
 - (c) Certificate of graduation necessary to admit to all higher schools.
 - (d) Complementary courses (*cours complémentaires*), covering from 1 to 2 years in connection with many lower primary schools.
- (2) Higher primary schools (*écoles primaires supérieures*).

- (a) Pupils, 10 to 18 years of age, admitted on certificate of lower school.
- (b) Course from 2 to 4 years in length.
- (3) Rural schools — of elementary grade.
- c. Industrial and technical schools.
 - (1) Communal or departmental schools.
 - (a) Manual training and trades.
 - (2) National professional schools.
 - (a) Commerce, industries, and agriculture.
 - (3) Special technical schools.
- d. Secondary schools.
 - (1) *Lycées* — State schools.
 - (2) *Collèges* — municipal or communal schools.
 - (3) Different schools of each kind for boys and for girls.
- e. Normal schools.
 - (1) Primary normal schools (*écoles normales primaires*)
 - (a) Elementary, for teachers in lower primary schools, two in each department, one for men and one for women.
 - (b) Higher, for teachers in elementary normal schools and in higher primary schools, two in all France, one for men and one for women.
 - (2) Higher normal school (*école normale supérieure*).
 - (a) One only, located at Paris, for secondary school teachers in *lycées*.
 - (b) University teachers are drawn from the ranks of secondary school teachers.
- f. Higher schools (*écoles supérieures*).
 - (a) Fifteen universities.
 - (b) Higher professional and technical schools.

England

Administration.

- i. The Education Department, established in 1900.
 - (1) Controls government grants for education.
 - (2) Provides inspectors for elementary, secondary, and technical schools.
- ii. Local boards.
 - (1) Distribute government grants.
 - (2) Raise other school funds by local taxation.
 - (3) Have direct conduct of the schools.
 - (a) Through school committee.
 - (b) Through inspectors.

Kinds of schools.

1. Infant schools (ages 3 to 7 years).
2. Elementary schools (ages above 7 years).
 - (1) Instruction compulsory between 5 and 14 years of age — practically free but not entirely, and non-sectarian.
 - (2) " Voluntary schools " — church schools, supported by vested funds and voluntary subscriptions.
 - (3) " Board schools " — under local school boards, supported by State grants and local taxation.
3. Technical schools.
 - (1) To provide training for trades, art, science, agriculture, and commerce.
 - (2) Carried on by the Science and Art Department, by guilds, by municipalities, by colleges, by philanthropic and religious associations.
4. Secondary schools.
 - (1) Public.
 - (a) Supplementary work in elementary schools.

- (b) Evening schools.
- (c) Technical schools.
- (d) Municipal high schools.
- (e) Scholarships offered by boards.
- (f) Government grants for private secondary schools.
- (2) Private.
 - (a) "Grammar schools" — scientific and classical.
 - (b) "Public schools" — mainly classical.
 - (c) High schools for girls.
- e. Teachers' training colleges.
 - (1) Separate colleges for men (17) and for women (25) and one for both.
- f. Higher schools.
 - (1) Colleges and universities.

United States

1. Administration.

- a. National bureau of education, a division of the Department of the Interior.
 - (1) No authority over schools.
 - (2) A bureau of statistics.
 - (3) Issues reports upon investigations.
- b. State organization and administration.
 - (1) Commissioner or superintendent or board of regents or board of education.
 - (2) Deputy officials, inspectors, secretaries, county superintendents, district superintendents, boards of trustees.
 - (3) City superintendents and boards of education.
 - (4) Expert supervision.
 - (a) General organization and administration.

- (b) Subject matter and methods of study.
- (c) Local administration through supervising teachers.

c. Kinds of schools.

- (1) Kindergartens.
- (2) Elementary schools.
 - (a) Primary grades (4).
 - (b) Grammar grades (4).
 - (c) Free, compulsory (from 7th or 8th to 13th or 14th or 16th year) — publicly supported — non-sectarian.
- (3) Secondary schools.
 - (a) Public high schools.
 - x. Classical, English, commercial, manual training, industrial, technical.
 - y. Free, publicly supported, non-sectarian.
 - (b) Private or endowed schools and academies.
 - x. Classical, scientific, college-preparatory.
- (4) Training schools for teachers.
 - (a) State supported.
 - x. Normal schools and colleges.
 - y. Institutes and training classes.
 - z. Teachers' associations.
 - (b) Municipally supported.
 - x. Training schools and classes.
 - (c) In universities.
 - x. Departments of education.
 - y. Professional training schools.
 - (d) Private normal and training schools.
- (5) Colleges and universities.
 - (a) State and city supported.
 - (b) Denominational.

- (c) Privately endowed.
- (d) Technical and professional.
- (6) Special schools.
 - (a) For law, medicine, and theology.
 - (b) Institutes of science and technology.
 - (c) For defectives.
 - (d) Trades schools.
 - (e) For the negroes and the Indians.

SURVEY OF THE HISTORY OF EDUCATION IN THE STATE OF NEW YORK

(Adams: *Free Schools in the U. S.*; Boese: *Publ. Educ. in the City of N. Y.*; Boone: *Educ. in the U. S.*; Bourne: *Hist. of Publ. Sch. Soc. of City of N. Y.*; Brown (E. E.): *The Making of Our Middle Schools*; Brown (J. F.): *The Am. High Sch.*, 1-38; Dexter: *Hist. Educ. in U. S.*, 12-23, 76-79, 94-96, 471-495; Draper: *Publ. Sch. Pioneering in N. Y. & Mass.*, in *Educ. Rev.*, III, 313-336 (Apr., '92); IV, 241-252 (Oct., '92); V, 345-362 (Apr., '93); VIII, 112-115 (Sept., '93); Dutton & Snedden: *Adm. of Publ. Educ. in U. S.*, 37, 67-69, 124-132; Finegan: *New York School Law*, 9, 11, 12, 16, 25, 31, 58, 164-168, 192, 222, 239, 243, 252, 276, 280; Hinsdale: *Horace Mann & the Common Sch. Revival in U. S.*; Martin: *Publ. Sch. Pioneering in N. Y. & Mass.*, in *Educ. Rev.*, IV, 34-36 (June, '92); V, 232-242 (Mch., '93); Mann (Mrs.): *Life of Horace Mann*; Millar: *The Sch. Syst. of the St. of N. Y.*; Porter: *Am. Colleges & the Am. Public*; Randall: *Hist. of the Com. Sch. Syst. of the St. of N. Y. since 1795*; Sherwood: *The Univ. of the St. of N. Y.* (circ. of inf. no. 3, 1900, publ. by U. S. Bureau of Educ.); Thwing: *Am. Colleges*; *U. S. Educ. Dept. Repts.*, 1892-1893, v. 2, 1268-1275; 1899-1900, v. 1, 284-302, 427-537.)

In Colonial Times under the Dutch

- 1629. First official act to provide the means of supporting a minister and a schoolmaster.
- 1633. First public school (elementary) established at New Amsterdam, Adam Roelandsen, teacher.
- 1642. Several private schools started.
- 1659. First Latin school, Dr. Alexander Carolus Curtius, teacher.

These schools were supported by subscription, by taxation, and by tuition fees. The teachers were poorly qualified and poorly paid; often were brought over from Holland.

In Colonial Times under the English

- 1702. First English school.
Dutch schools had disappeared for the most part, and the English were slow to start new ones, not wholly favoring popular education.
- 1732. First Latin school of the English — designed to give instruction in Latin, Greek, and mathematics — supported by public taxation — instruction free.
- 1754. King's College in New York City chartered.
- 1767. Medical department added to King's College.
Up to 1775, the elementary schools of New York City were fostered by the Society for the Propagation of the Gospel.

As an Independent State

- 1784. First State supervision of education provided, by the creation of the "Regents of the University of the

State of New York." Originally designed to be the directing board of King's College.

1786. Unappropriated State lands were set apart for a "literature" fund and for a "gospel and school" fund. Revenue from this source was later used for the maintenance of schools. Special appropriations were also made to help the private academies, of which there had been a considerable number established.

1787. King's College granted new charter and name changed to Columbia College.

Board of Regents reorganized and powers enlarged to include supervision of all matters relating to private educational institutions of the State.

1795. Union College, at Schenectady, founded.

General school law passed, encouraging the establishment of schools and prescribing the instruction in "English grammar, arithmetic, mathematics, and such other branches of knowledge as are most useful and necessary to a good education."

Town commissioners provided, but without salary.

- 1795-1800. ¹Law enacted appropriating \$50,000 a year for five years toward the support of the common schools. Although not continued after 1800, in the belief that some religious societies should support the schools, nevertheless this law was the first definite step in the working out of the State educational system. By this time there were nearly 1400 public schools and over 60,000 pupils.

1801. A permanent common School fund was established by law from the sale of public lands, set apart in 1786.

¹ There is uncertainty about this appropriation; Mr. Dexter states that the amount was \$100,000. (Cf. Dexter: *Hist. of Educ. in U. S.*, p. 77.)

1802. United States Military Academy started at West Point.
1805. The Public School Society of the City of New York was chartered to establish free schools for the poor — it controlled the public schools in New York City until 1853.
1812. Hamilton College founded at Clinton.
Law enacted that State would give aid to schools to an amount equal to that which the district raised by taxation — continued in force up to 1840.
Office of State “ Superintendent of Common Schools ” created, to take charge of the public school system.
1813. Gideon Hawley appointed first State Superintendent. Also paid township commissioners, whose duties were the inspection of schools and the examination of teachers. State was divided into districts for school purposes. School funds were distributed on a per capita basis of school population.
1817. New York Academy of Science established.
1818. Joseph Lancaster, Englishman, came to New York and aided in starting schools on the monitorial plan.
1821. Office of State Superintendent was abolished and Secretary of State was charged with the direction of the schools.
1823. Brooklyn Academy of Arts and Science founded.
1824. Albany Institute established.
1825. Rensselaer Polytechnic Institute founded.
1827. First law relating to the training of teachers was ineffective. This work was being done by the academies, by special appropriations of the school funds made annually up to 1844.
1830. State convention of teachers at Utica.
1831. The Canandaigua and St. Lawrence academies re-

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ported "principles of teaching" as among the subjects offered. By 1834, three other academies maintained similar courses.

- 1834. Teachers' training classes organized.
- 1835. System of school district libraries begun.
- 1836. Fund granted to New York as one among the several states by the United States government, under President Jackson, from surplus in treasury — the income of this fund was applied to public education.
- 1841. Office of Deputy Superintendent of Common Schools for each county created.
- 1843. First teachers' institute held at Ithaca.
Name of Deputy changed to County Superintendent of Common Schools — office discontinued in 1847.
Offices of Town Commissioner and Town Inspector abolished and that of Town Superintendent created.
- 1844. Founding at Albany of the first normal school.
- 1847. Money appropriated for the support of teachers' institutes.
- 1849. System of free schools established for the entire state.
- 1851. New York University founded.
Rochester University founded.
First institution for the feeble-minded established at Syracuse.
- 1853. First act providing for union free schools.
- 1854. Office of State Superintendent of Public Instruction re-established under this new name.
 - 1854. Victor M. Rice, first appointee.
 - 1874. Abraham B. Weaver.
 - 1876. Neil Gilmore.
 - 1886. Andrew S. Draper.
 - 1892. James F. Crooker.
 - 1895. Charles R. Skinner.

- 1854. College of the City of New York founded as part of the school system of New York City — for city residents only — supported by municipal taxation.
- 1855. Elmira College for women founded.
- 1856. Office of school commissioner established.
- 1863. Oswego Normal School opened.
- 1864. Consolidated School Act providing for union of weak schools to make single strong one.
- 1865. Vassar College for women founded.
- 1866. Normal Schools established at Brockport, Fredonia, Cortland, and Potsdam.
- 1867. Free school fund established.
Money raised by taxation.
Normal Schools established at Buffalo and Geneseo.
- 1868. Cornell University founded as result of national land grant of 1862 and authorized to provide thereafter annually, under Act of 1865, free tuition to one resident of each assembly district of the State.
System of free schools (established in 1849) in full operation.
- 1870. Normal College of the City of New York opened.
- 1871. Syracuse University founded.
- 1872. First kindergarten started privately in New York City by Miss Krauss-Boelte — also private institution for training kindergarten teachers, which has since become one of the leading training schools for kindergartners.
- 1874. Compulsory education law enacted, fixing the age at from 8 to 14 years — not properly enforced.
- 1875. Examinations for State Teachers' Certificates first instituted.
- 1878. Chautauqua movement started.
- 1885. Normal School established at New Paltz.

1887. Normal School established at Oneonta.
1888. Teachers College opened at Columbia University.
1889. Barnard College for women founded at Columbia University.
- Corporate name of "Board of Regents of the University of the State of New York" changed by legislature to "University of State of New York."
- School year lengthened from 28 weeks to 32 weeks.
- Normal School established at Plattsburg.
1890. School of Pedagogy opened at New York University.
1891. Normal School at Albany reorganized into the State Normal College, designed to do professional work only.
1894. Compulsory education law, fixing the school age at from 7 to 14 years and also from 14 to 16 years for all "who are not regularly employed or lawfully engaged in any useful employment or service."
1900. School authorities of cities and incorporated villages prohibited from establishing special schools for colored children; and it was enacted that no person should be refused admission into or be excluded from any public school on account of race or color.
1904. Unification law, consolidating the Board of Regents and the Department of Public Instruction, and creating the office of Commissioner of Education. Andrew S. Draper the first commissioner.
1910. Office of school commissioner abolished and that of district superintendent created.

Statistics of New York State Education for 1909

1. Elementary education.
 - a. Number of common schools, 12,069.

- b.* Number of students, 1,386,712.
- c.* Estimated number of students in private elementary schools, 267,800.
- 2. Secondary education.
 - a.* Number of high schools, 692.
 - b.* Number of students in high schools, 107,090.
 - c.* Number of academies, 162.
 - d.* Number of students in academies, 14,510.
- 3. Higher education.
 - a.* Number of institutions, 75.
 - (1) Universities, 7.
 - (2) Colleges, 33.
 - (3) Professional schools, 18.
 - (4) Normal schools, 10.
 - (5) Technical schools, 7.
 - b.* Number of students, 36,287.
 - c.* Some of the well-known institutions: —

Alfred	Cornell	Rochester
Barnard	Elmira	Union
Brooklyn Poly-technic	Fordham	St. Stephen's
	Hamilton	Syracuse
Clarkson	Manhattan	Vassar
Colgate	New York University	
Columbia	Rensselaer Polytechnic	

Institutions in New York State for the Training of Teachers

- 1. Normal College at Albany.
- 2. Normal schools at

Brockport	Cortland	Geneseo	Oneonta	Plattsburg
Buffalo	Fredonia	New Paltz	Oswego	Potsdam

3. Schools of pedagogy and pedagogical departments in colleges and universities.
4. Teachers' training schools and classes.
5. Teachers' institutes (discontinued in 1911).

Means of Support of New York State Schools

1. The Common School Fund: created in 1805, resulting from the sale of vacant and unappropriated lands — this revenue was first realized in 1815 and then provided one half of the amount expended on the schools, the other half being raised by local taxation. Original fund in 1805, \$59,000; value in 1910, \$4,773,000. Now annually appropriated for the common schools, \$170,000.
2. The United States Deposit Fund: created in 1836 by the distribution among the states by the National government for safe-keeping of surplus revenues in the United States treasury. It is subject to recall, although probably will never be claimed. New York received \$4,000,000 and appropriated it for school purposes, the annual amount from 1838 to 1881 being \$165,000; since 1881, \$75,000.
3. The Free School Fund: created by direct State tax, first levied in 1851, when \$800,000 were raised. This amount has since greatly increased and been added to by indirect taxation, so that now it is not denominated the free-school fund, but the legislature makes annual appropriations for the support of common schools. \$47,918,427.98 were raised in this way in 1909.
4. The Gospel and School Lands Fund: created from the sale of lands originally set apart in 1784 for the support of a minister of the gospel and for the use of a public school.

The amount of land was changed in 1786 and again in 1789, then ordered rented and sold, creating an income which by authority of the legislature has been applied to the support of the public schools. In 1910, the amount realized was \$26,614.82.

- . The Literature Fund : created in 1786, by act ordering the sale of unappropriated lands and the use of the money for the promotion of literature in the state. The fund was increased by subsequent acts of similar character, bringing the total up to \$284,201.32 in 1910.



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